City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Bryant Residence
Proposal Address:	701 Shoreland Drive SE
Proposal Description:	Application for a Critical Areas Land Use Permit to demolish an existing single-family residence and existing improvements and construct a new residence on a property adjacent to Lake Washington. Modification and/or disturbance of a steep slope critical area, 50-foot top-of-slope buffer, and 75-foot toe-of-slope structure setback is proposed.
File Number:	17-126194-LO
Applicant:	Jim Dearth, Ripple Design Studio
Decisions Included:	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Reilly Pittman, Land Use Planner
State Environmental Policy Act Threshold Determination:	Exempt
Director's Decision:	Approval with Conditions Michael A. Brennan, Director Development Services Department

By: _____
Elizabeth Stead, Land Use Director

Application Date:	October 18, 2017
Notice of Application Date:	November 2, 2017
Decision Publication Date:	December 7, 2017
Appeal Deadline:	December 21, 2017

For information on how to appeal a project proposal, visit the Permit Center at City Hall or call 425-452-6800. Appeals must be made to the City of Bellevue City Clerk's Office by 5 p.m. on the date noted above for the appeal deadline.

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Attachments

1. Project Plans – Enclosed
2. Critical Areas Report, Habitat Assessment, and Maintenance and Monitoring Plan – In File
3. Geotech Report and Critical Areas Code Response – In File
4. Bald Eagle Use Assessment and Addendums – In File
5. Arborist Reports, Tree Information and Tree Protection Plan – In File
6. Survey, Permit forms, and documents – In File

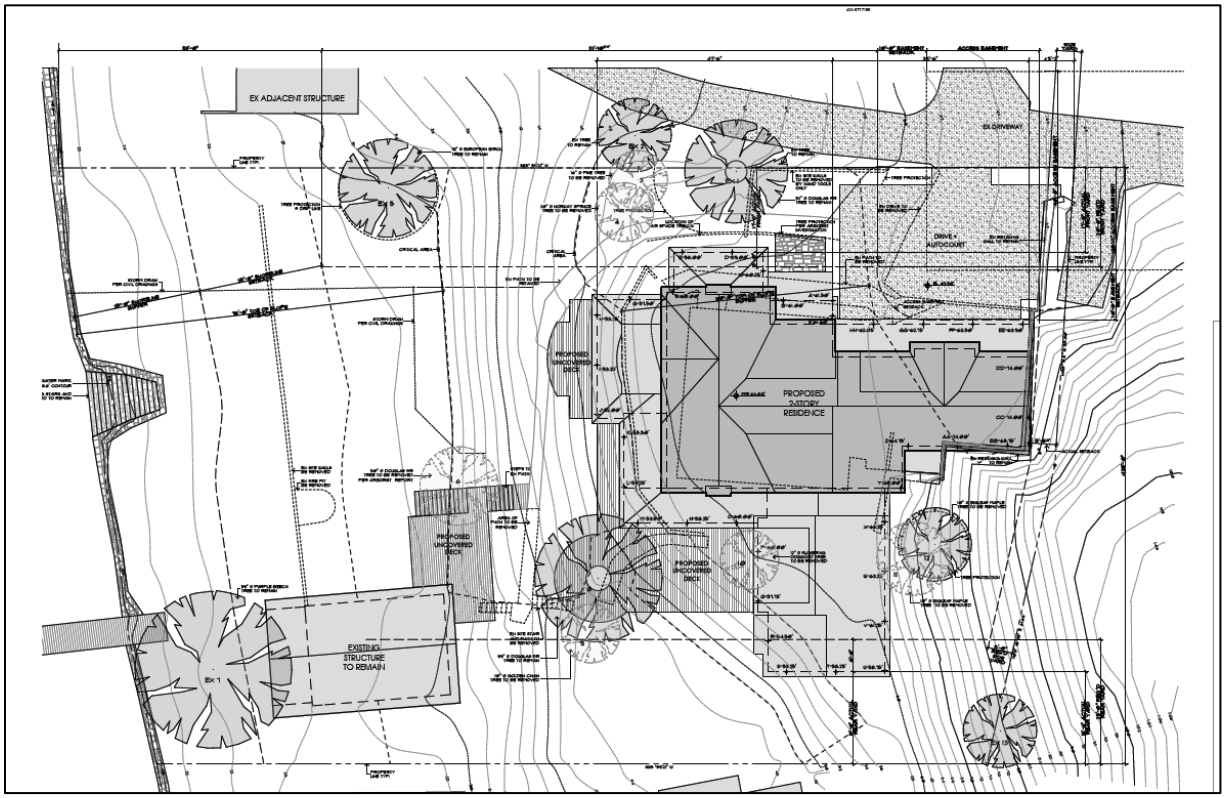
I. Proposal Description

The applicant proposes to demolish the existing residence and construct a new residence, attached garage, decks, and driveway that will permanently impact 1,623 square feet of steep slopes, 3,097 square feet of 50-foot top-of-slope buffer and 903 square feet of the 75-foot toe-of-slope structure setback. The proposed 5,623 square feet of total permanent impact area and all areas of temporary disturbance are proposed to be replanted with 5,763 square feet of mitigation planting located on the remaining steep slope and buffer areas. Some temporary disturbance is proposed in the shoreline buffer and setback for installation of a drainage line and this disturbance will be restored.

A previous development proposal was approved under a prior application (16-144424-LO) that included greater impacts to critical areas, alterations and grading within the shoreline buffer and setback, and removal of large conifers used by eagles. This revised application reduces the impacts and consolidates improvements within the steep slope, buffer and setback and avoids permanent impact in the shoreline buffer and setback. In addition, this proposal also saves a large conifer with demonstrated use by eagles for perching.

The proposal impacts a steep slope critical area, 50-foot top-of-slope buffer, 75-foot toe-of-slope setback proposed and results in temporary disturbance. Approval of a Critical Areas Land Use Permit with a critical areas report is required for all proposed permanent impacts and temporary disturbance. See attachment 1 for project plans and figure 1 for a depiction of the project.

Figure 1



II. Site Description, Zoning, and Land Use

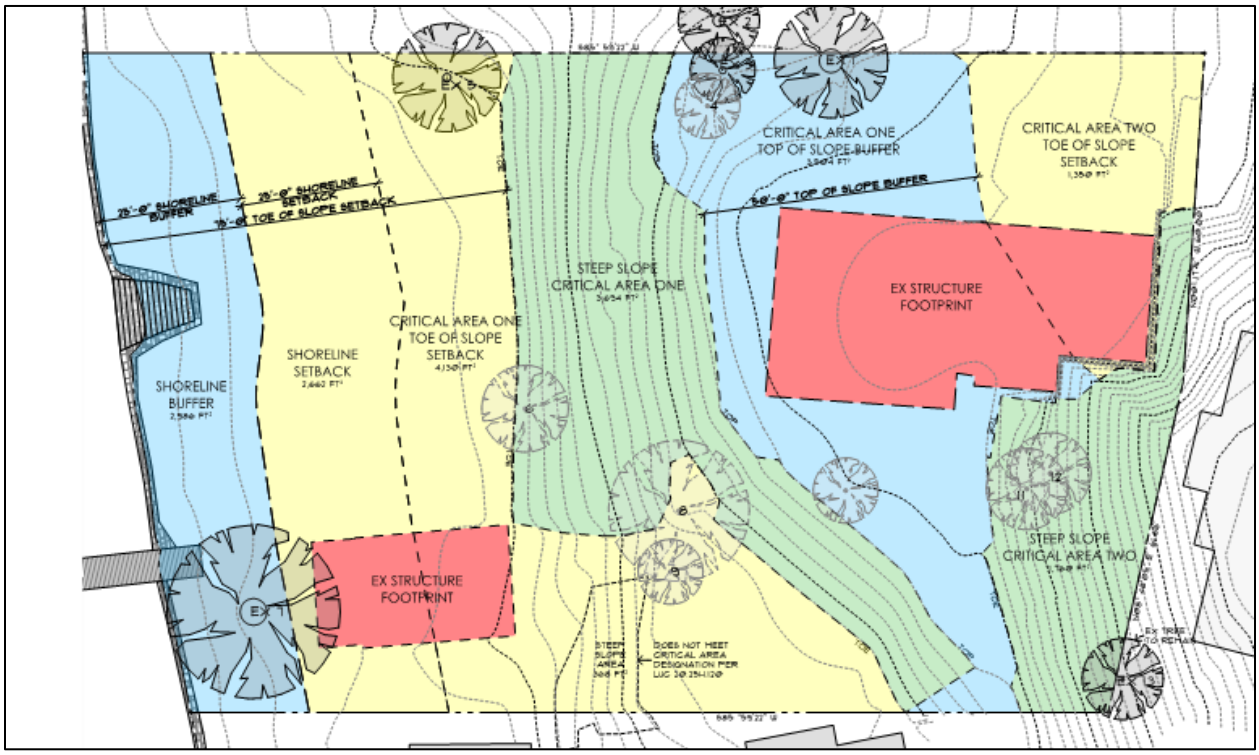
A. Site Description

The project site is located at 701 Shoreland Drive SE in the Southwest Bellevue Subarea. The site is adjacent to Lake Washington to the west and is surrounded by other residential properties on all other sides. The property obtains access from an access easement that crosses the properties to the south and connects with SE 15th Street that is within the city-owned Chism Beach Park. There is an existing single-family residence on-site and a detached accessory structure adjacent to the lake both of which are proposed for demolition. See Figure 2 for existing site condition.

Figure 2

The existing house is located on the eastern half of the property that is relatively flat. A steep slope critical area is located centrally on the site and begins just west of the existing house and slopes very steeply down to another flat area that comprises the shoreline buffer and setback. This area along the shoreline was exposed when the level of Lake Washington dropped due to construction of the Ballard Locks that regulate the lake level starting in 1914. An existing accessory structure is located in the shoreline buffer and setback along with a dock in Lake Washington. The shoreline is lined with a bulkhead which has a large stair down to the water. The site is covered in numerous paths and small landscaping walls. See figure 3 for existing critical areas.

Figure 3



Existing vegetation on the property consists of “relatively simple plant communities” with scattered trees of both native and nonnative species and varying ages (CAR, pg. 10). The understory includes dense shrubs, grass, and other ground covers that are nonnative and ornamental as well as invasive and noxious weeds. The trees on site include very old and significant trees with some exceeding 50 inches in diameter. Most notable is the large 59-inch diameter Douglas-fir on the steep slope and a large beech tree on the shoreline. Bald Eagle usage of the Douglas-firs on the site and vicinity for perching and foraging has been confirmed and is discussed in attachment 4 which is a bald eagle use assessment.

B. Zoning

The property is zoned R-2.5, single-family residential and the proposed house and improvements are allowed in this zoning district.

C. Land Use Context

The property has a Comprehensive plan Land Use Designation of SF-M (Single Family Medium Density). Construction of a home and improvements is consistent with this land use.

D. Critical Areas On-Site and Regulations

i. Shorelines

Shorelines provide a variety of functions including shade, temperature control, water purification, woody debris recruitment, channel, bank and beach erosion, sediment

delivery, and terrestrial-based food supply (Gregory et al. 1991; Naiman et al. 1993; Spence et al.1996).

Shorelines provide a wide variety of functions related to aquatic and riparian habitat, flood control and water quality, economic resources, and recreation, among others. Each function is a product of physical, chemical, and biological processes at work within the overall landscape. In lakes, these processes take place within an integrated system (ecosystem) of coupled aquatic and riparian habitats (Schindler and Scheuerell 2002). Hence, it is important to have an ecosystem approach which incorporates an understanding of shoreline functions and values.

ii. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provides a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

iii. Habitat Associated with Species of Local Importance

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005, Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005).Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding,

colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The R-2.5 zoning dimensional requirements found in LUC 20.20.010 are generally met by the proposed house but conformance will be verified during building permit review. All setbacks, height, lot coverage by structure, and impervious surface may be required to be verified by survey through the building permit inspection process. The submitted tree retention does not count tree number 6 which is 50-inch Douglas fir. This tree is required to be included in the total diameter inches of trees onsite. Hazardous trees may be removed but their inches are still included in the total trees on a property. The plans submitted under the building permit need to include this tree into the tree retention calculation. **See Conditions of Approval in Section X of this report**

B. Noise Code Requirements BCC 9.18

All noise generated, including construction noise, is regulated by BCC 9.18. Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit. **See Section X for a related condition of approval.**

C. Critical Areas Overlay District LUC 20.25H

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The project area is within a steep slope critical area, 50-foot top-of-slope buffer, the 75-foot toe-of-slope setback, and is subject to the performance standards found below:

i. Consistency with LUC 20.25H.125

Development within a landslide hazard or steep slope critical area or the critical area buffers of such hazards shall incorporate the following additional performance standards in design of the development, as applicable. The requirement for long-term slope stability

shall exclude designs that require regular and periodic maintenance to maintain their level of function.

1. **Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;**
   The proposed home is generally sited within the existing house footprint and the location of existing improvements as much as possible. The proposal utilizes tiered foundations walls to the maximum extent possible. The pin foundation proposed will also limit the need for extensive excavation that would further disturb the slope. Proposed recreational improvements such as patios, hot tubs, and fire pits that are external to the house footprint have been removed or consolidated to avoid impacting existing topography and vegetation.

2. **Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;**
   The proposed development on the property is located to avoid the shoreline buffer and structure setback and to retain as many significant trees on-site as possible. The applicant has provided arborist analysis of the trees on the property to review the condition of the trees, determine how construction may impact the trees, and to provide recommendation on how the trees can be protected during construction. The project is designed to retain the largest tree on-site which is used by eagles for perching. The proposed deck is to be built around the tree which has been found feasible by a certified arborist. The arborist is required to provide a letter prior to construction start that confirms all tree protection and BMPs on-site are installed per their recommendations. After construction, the arborist is required to provide a letter that describes the condition of retained trees and provides any further recommendations. **See Section X for a related condition of approval.**

3. **The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;**
   Per the submitted geotechnical report prepared by PanGeo dated October 18, 2017 as attachment 3, the proposal "will not result in greater risk to the neighboring properties" (Geotech letter, Pg. 2). The geotech also concludes that the proposed improvements will likely "improve the stability of the subject site" (Pg. 2). The applicant will be required to record a hold harmless agreement which releases the City from liability for any damage arising from the location of improvements within a geologically hazardous area in accordance with LUC 20.30P.170. All work is required to be carried out per the recommendations of the geotechnical engineer. **See Conditions of Approval in Section X of this report.**

4. **The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes**

would result in increased disturbance as compared to use of retaining wall;
The proposed house foundation is intended to provide primary site retention.

5. **Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;**
   Location of improvements in the steep slope is minimized by the project to the maximum extent possible. The proposed mitigation planting will increase vegetation coverage and improve storm water function.

6. **Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;**
   The change in grade outside of the proposed building footprint is very minimal as the foundation provides retention and modification of the topography is minimized by this design.

7. **Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;**
   The foundation walls are utilized for retention.

8. **On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;**
   The geotech found that the use of pole-type construction on this site would result in a "less stable site/structure" and a tiered foundation is proposed to meet this standard (See Attachment * Pg. 2 Geotechnical Report).

9. **On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and**
   No construction is proposed in slopes of 40 percent for parking. The parking area is located at the top of the slope, where it is presently located due to the limited driveway access available.

10. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**
    All disturbed areas are proposed to be restored as part of the site-wide mitigation

plan which is included in attachment 1. The site is proposed to be replanted with 5,763 square feet of native vegetation outside of the house footprint and proposed improvements primarily within steep slope area. **See Section X for a related condition of approval.**

ii. Consistency with LUC 20.25H.145

Modifications to geological hazard areas and critical area buffers shall only be approved if the Director determines that the modification:

1. **Will not increase the threat of the geological hazard to adjacent properties over conditions that would exist if the provisions of this part were not modified;**
2. **Will not adversely impact other critical areas;**
3. **Is designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than would exist if the provisions of this part were not modified;**
4. **Is certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington;**
5. **The applicant provides a geotechnical report prepared by a qualified professional demonstrating that modification of the critical area or critical area buffer will have no adverse impacts on stability of any adjacent slopes, and will not impact stability of any existing structures. Geotechnical reporting standards shall comply with requirements developed by the Director in City of Bellevue Submittal Requirements Sheet 25, Geotechnical Report and Stability Analysis Requirements, now or as hereafter amended;**
6. **Any modification complies with recommendations of the geotechnical support with respect to best management practices, construction techniques or other recommendations; and**
7. **The proposed modification to the critical area or critical area buffer with any associated mitigation does not significantly impact habitat associated with species of local importance, or such habitat that could reasonably be expected to exist during the anticipated life of the development proposal if the area were regulated under this part.**

   The applicant provided the analysis of a qualified geotechnical engineer in a geotechnical report dated October 18, 2017 prepared by PanGeo. The geotechnical engineer found that the proposed improvements will not increase the threat of the geological hazard to adjacent properties, impact other critical areas, and is designed to mitigate any hazard to a level equal to or less than the existing condition of the site.

   The proposed tree removal does not directly impact an active nest of a species of local importance. Eagle usage is documented on the site but the opportunity for eagles to continue to use this property and adjacent properties is not removed by

the proposal. The submitted Bald Eagle Use Assessment includes discussion with a WDFW biologist and nearby residents regarding eagle usage on trees in vicinity of the project site as well as on-site. No nest was found on-site and the only documented nest is over a half mile away. Per the US Fish and Wildlife Service website this project would not require an eagle take permit as there is no nest within 660 feet. The project is required to meet any requirements of the federal management guidelines for eagles as enforced by the US Fish and Wildlife Service. Based on the retention of the existing perch tree and availability and documented use of eagles on trees in the vicinity, the property maintains perching function and the proposed tree removal does not impact a species of local importance by removing the potential for eagle usage of the property. **See Conditions of Approval in Section X of this report**

IV. Public Notice and Comment

Application Date:	October 18, 2017
Public Notice (500 feet):	November 2, 2017
Minimum Comment Period:	November 16, 2017

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on November 2, 2017. It was mailed to property owners within 500 feet of the project site. One neighbor requested to be a party of record.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards and approved the application with the condition that the project geotechnical engineer must review the final plans, including the structural, foundation and piers installation design. A letter from the geotechnical engineer stating that the slope stability is within the approvable factors of safety and that the plans conform to the recommendations in the geotechnical report and any addendums and supplements must be submitted prior to issuance of the Building permit. **See Conditions of Approval in Section X of this report**

VI. State Environmental Policy Act (SEPA)

Per BCC 22.02.032 and WAC 197-11-800(1) construction and associated grading of one single-family residence and improvements located in critical areas is exempt from SEPA review.

VII. Changes to Proposal Due to Staff Review

The applicant provided substantial analysis of the trees on-site that have potential to be used by eagles in order to determine the feasibility of development and avoiding damage to the

trees. The house and proposed improvements were also reduced and consolidated to avoid impacts with the result that the large tree on site used as an eagle perch will be retained by this revised proposal.

VIII. Decision Criteria

A. 20.25H.255.B Critical Areas Report Decision Criteria

The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:

1. **The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;**
   The submitted critical areas report identifies the on-site steep slope critical area, buffers, setbacks, and shoreline critical area as having limited function and value compared to a natural undisturbed site. Existing development and lack of maintenance have degraded the site as compared to the site's potential. The project proposes to restore 5,763 square feet of the property with native vegetation planted on the steep slope, buffers and setback. The site will have a net improvement in water quality, slope stability, habitat potential and structural complexity. See functional discussion the submitted critical areas report that is attachment 2.

2. **The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;**
   Restoration of a large portion of the property to a more natural condition will improve stormwater quality, increase the area of shallow habitat available, provide some shade to aquatic habitat, and the opportunity for additional organic material input to the lake. The site contains both invasive and non-native plant coverage resulting in a lack of species diversity within the critical area. The proposed mitigation will remove improvements and invasive and non-native vegetation and provide amended soils replanted with native species that will contribute to species and structure diversity. **See Conditions of Approval in Section X of this report.**

3. **The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer;**
   The proposed increase of vegetation cover and amended soils will improve stormwater quality on the property. Increased coverage by native vegetation will improve stormwater filtering and overall water quality. All planting is required to be consistent with the City's Environmental Best Management Practices for use of pesticides, insecticides, and fertilizers. **See Conditions of Approval in Section X of this report.**

4. **Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;**
   Mitigation planting is required and found in attachment 1. The planting shall be maintained and monitored for a period of at least five years per the plan in the critical areas report as attachment 2. A maintenance surety will be required based on a submitted cost estimate prior to building permit issuance. The surety will be released after five years assuming restoration has been successful. **See Conditions of Approval in Section X of this report.**

5. **The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and**
   The modifications and performance measures in this proposal are not detrimental to the functions and values of the shoreline or steep slope critical area (see Section III for additional discuss above). The perching and foraging habitat functions are maintained on the site by retention of large trees.

6. **The resulting development is compatible with other uses and development in the same land use district.**
   The project will construct a new single-family residence which is a compatible use with the surrounding uses which are also single-family homes.

B. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria
The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**
   The applicant must obtain a building permit before beginning any work. **See Conditions of Approval in Section X of this report.**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**
   The alternatives reviewed by the applicant and arborist assessment of the trees on the site has resulted in avoidance and protection of critical areas and functions to the maximum extent possible that allows development of the property. The purpose of the critical areas regulations in LUC 20.25H is to protect critical area function and value while still allowing reasonable development to occur. The proposed project results in a site that can be expected to retain existing habitat functions and improve upon them. Alternatives considered included construction of a smaller home or modified footprint options but still resulted in damage to the largest trees on site given the nature of the roots that have integrated with the site improvements over time. The proposed alternative retains a large eagle perch tree, results in substantial mitigation to improve

the vegetation coverage, structure, and quality on the property as well as providing habitat features that are intended to maintain habitat functions. The result is that the proposal has the least impact on the shoreline and habitat which are the most important critical areas on this site.

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;**
   As discussed in Section III of this report, the performance standards of LUC 20.25H are being met or exceeded.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**
   The proposed activity will not affect public services or facilities.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**
   A mitigation planting plan has been submitted. The proposed planting will restore the steep slope with native plants. A maintenance surety will be required to ensure plant survival over the 5-year monitoring period. **See Conditions of Approval in Section X of this report.**

6. **The proposal complies with other applicable requirements of this code.**
   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the Critical Areas Land Use Permit to construct a new house, associated improvements, and mitigation planting on the property. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A building permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

Note - Expiration of Critical Area Permit Approval: In accordance with LUC 20.30P.150, a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a building permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control- BCC 9.18	Reilly Pittman, 425-452-4350

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1. **Building Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a building permit. Application 16-149043-BS must be approved before any construction may begin. Plans submitted as part of the building permit application shall be consistent with the activity permitted under this approval.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

2. **Hold Harmless Agreement:** The applicant shall submit a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of improvements within a critical area buffer in accordance with LUC 20.30P.170. The hold harmless agreement is required to be recorded with King County prior to clearing and grading permit issuance. Staff will provide the applicant with the hold harmless form.

   Authority: Land Use Code 20.30P.170
   Reviewer: Reilly Pittman, Development Services Department

3. **Tree Protection and Arborist Direction:** Tree protection on the property will be per City Clearing and Grading BMP T101 and per any recommendations of the project arborist. Any grading, excavation, construction access, staging or any other work that may impact root zones near the large beach tree adjacent to lake Washington and the large trees along the north property line shall be done under the supervision of the arborist to ensure these significant trees are protected. The arborist is required to ensure measures are in place within root zones to adequately protect from soil compaction that can damage the roots. Measures include use of mulch, metal plates, plywood, or other means to prevent root zone compaction.

   Authority: Land Use Code 20.25H.220, Bellevue City Code 23.76
   Reviewer: Reilly Pittman, Development Services Department

4. **Tree Retention Calculation**: The plans submitted under the building permit must include tree 6 in the total diameter inches of the tree retention calculation.

Authority: Land Use Code 20.20.900
Reviewer: Reilly Pittman, Development Services Department

5. **Arborist Pre-Construction Verification:** The arborist is required to prepare a memo to be submitted to the City under the building permit as a post-issuance revision that verifies all tree protection fencing and construction BMPs are installed that are necessary to protect the trees, consistent with their recommendations in the arborist report dated June 10, 2017 as attachment 5. This memo is required prior to preconstruction inspection approval.

   Authority: Land Use Code 20.25H.220, LUC 20.20.900
   Reviewer: Reilly Pittman, Development Services Department

6. **Arborist Post-Construction Verification:** The arborist is required to prepare a memo at the completion of construction to be submitted as a post-issuance revision to the building permit that describes the condition of retained trees on-site and any further recommendations. This memo is required prior to final inspection approval.

   Authority: Land Use Code 20.25H.220, LUC 20.20.900
   Reviewer: Reilly Pittman, Development Services Department

7. **Eagle Letter:** Prior to pre-construction meeting, the project biologist is required to submit a letter under the building permit as a post-issuance revision that confirms that no eagle nest is present on the site or within 660 feet.

   Authority: Land Use Code 20.25H.160
   Reviewer: Reilly Pittman, Development Services Department

8. **Mitigation Planting:** The proposed mitigation planting shown on the submitted planting plan included in attachment 1 is required to be installed. The planting plan is required to be submitted and approved prior to building permit issuance. All permanent and temporary disturbance is required to be mitigated and/or restored.
   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

9. **Maintenance Surety:** In order to ensure the restoration successfully establishes, a maintenance assurance device for an amount equal to $6,300 which is the estimated cost maintenance shall be held for a period of five years from the date of successful installation. The maintenance assurance device will be released to the applicant upon receipt of documentation of reporting successful establishment in compliance with the performance standards described in the submitted critical areas report as attachment 2.

   Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

10. **Monitoring:** The planting area shall be maintained and monitored for 5 years as detailed in the monitoring plan, goals, and performance standards found in the submitted critical areas report as attachment 2.

    Annual monitoring reports are to be submitted to Land Use each of the five years. The reports, along with a copy of the planting plan, can be sent to Reilly Pittman at rpittman@bellevuewa.gov or to the address below:

    Environmental Planning Manager
    Development Services Department
    City of Bellevue
    PO Box 90012
    Bellevue, WA 98009-9012

    Authority: Land Use Code 20.30P.140; 20.25H.220
    Reviewer: Reilly Pittman, Development Services Department

11. **Land Use Inspection Required:** Inspection of mitigation planting must be completed by the Land Use Planner as part of the building permit inspection process. A Land Use inspection will be added to the building permit.

    Authority: Land Use Code 20.25H.210
    Reviewer: Reilly Pittman, Development Services Department

12. **Geotechnical Recommendations:** All work is required to be carried out per the recommendations provided by the geotechnical engineer.

    Authority: Land Use Code 20.30P.140
    Reviewer: Reilly Pittman, Development Services Department

13. **Geotechnical Analysis:** The project geotechnical engineer must review the final plans, including the structural, foundation and piers installation design. A letter from the geotechnical engineer stating that the slope stability is within the approvable factors of safety and that the plans conform to the recommendations in the geotechnical report and any addendums and supplements must be submitted prior to issuance of the Building permit.

    Authority: Bellevue City Code 23.76
    Reviewer: Savina Uzunow, Development Services Department

14. **Pesticides, Insecticides, and Fertilizers:** The applicant must submit as part of the required building permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices".

    Authority: Land Use Code 20.25H.080 and LUC 20.25H.100
    Reviewer: Reilly Pittman, Development Services Department

15. **Noise Control:** Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

    Authority: Bellevue City Code 9.18
    Reviewer: Reilly Pittman, Development Services Department

AVERAGE EXISTING GRADE CALCS:

ELEVATION POINTS	ELEVATION
A	61.50
B	61.00
C	60.25
D	59.00
E	58.00
F	60.00
G	57.50
H	53.25
I	53.25
J	52.0C
K	55.50
L	54.25
M	53.50
N	58.25
O	60.00
P	60.00
Q	57.75
R	54.50
S	53.25
T	58.25
U	58.75
V	61.75
W	63.25
X	63.25
Y	65.00
Z	64.75
AA	74.00
BB	65.75
CC	74.00
DD	74.00
EE	63.9C
FF	63.50
GG	62.75
HH	62.05
II	61.6C
TOTAL ELEVATIONS	2119.30
QUANTITY OF POINTS	35
AVERAGE EXISTING GRADE	**60.55**

LOT COVERAGE CALCULATIONS:

LOT AREA:	22,890 FT²
STEEP SLOPE CRITICAL AREA:	5,454 FT²
REMAINING LOT AREA:	17,436 FT²
MAX ALLOWABLE BUILDING COVERAGE:	6,103 FT² (35%)
EXISTING RESIDENCE TO BE REMOVED:	-957 FT²
EXISTING ACCESSORY STRUCTURE TO REMAIN:	566 FT²
EXISTING BUILDING COVERAGE TO REMAIN:	566 FT²
PROPOSED RESIDENCE + COVERED DECK:	4,169 FT²
TOTAL BUILDING COVERAGE UPON COMPLETION:	**4,735 FT² (27.1%)**

TREE RETENTION CALCULATIONS:

SIGNIFICANT TREES:	**DBH**	**RETAIN?**
TREE #1 - DOUGLAS FIR (PSUEDOTSUGA MENZIESII)	52"	YES
TREE #3 - PINE (PINUS SABINIANA)	16"	NO
TREE #4 - NORWAY SPRUCE (PICEA ABIES)	20"	NO
TREE #5 - EUROPEAN BIRCH (BETULA PENDULA)	18"	YES
TREE #7 - PURPLE BEECH (FAGU SYLVATICA)	59"	YES
TREE #8 - DOUGLAS FIR (PSUEDOTSUGA MENZIESII)	59"	YES
TREE #9 - GOLDEN CHAIN (LABURNUM ANAGROIDES)	10"	NO
TREE #10 - FLOWERING DOGWOOD (CORNUS FLORIDA)	12"	NO
TREE #11 - BIGLEAF MAPLE (ACER MACROPHYLLUM)	10"	NO
TREE #12 - BIGLEAF MAPLE (ACER MACROPHYLLUM)	10"	YES

*TREE #6 EXCLUDED, HAZARDOUS PER ARBORIST REPORT

TOTAL CALIPER OF SIGNIFICANT TREES	266"
PROPOSED CALIPER OF TREES TO REMAIN	**198" (74.4%)**

FAR CALCULATIONS:

LOT AREA PER SURVEY:	22,890 FT²
0.5 F.A.R. THRESHOLD:	**11,445 FT² (50%)**
GROSS ACCESSORY BUILDING FLOOR AREA:	534 FT²
GROSS FIRST FLOOR AREA (INCL GARAGE):	2,651 FT²
GROSS SECOND FLOOR AREA:	1,986 FT²
TOTAL FLOOR AREA:	**5,171 FT² (22.6%)**

GREENSCAPE CALCULATIONS:

FRONT YARD SETBACK AREA:	2,482 FT²
MIN REQUIRED GREENSCAPE:	**1,241 FT² (50%)**
IMPERVIOUS AREA WITHIN SETBACK (EX + PROP):	637 FT²
PROPOSED GREENSCAPE:	**1,845 FT² (74.3%)**

SITE NOTES:

1. ALL IMMEDIATE AREAS AFFECTED BY NEW DEVELOPMENT SHALL BE GRADED AWAY FROM FOUNDATIONS + ADJACENT PROPERTIES @ 10% AS POSSIBLE, 2% MIN.

IMPERVIOUS SURFACE CALCS:

LOT AREA:	22,890FT²
STEEP SLOPE CRITICAL AREA:	5,454 FT²
REMAINING LOT AREA:	17,436 FT²
ALLOWABLE IMPERVIOUS SURFACE:	8,718 FT² (50%)
EXISTING ROOF IMPERVIOUS SURFACE TO REMAIN:	901 FT²
EXISTING WALKS IMPERVIOUS SURFACE TO REMAIN:	375 FT²
TOTAL EXISTING IMPERVIOUS SURFACE TO REMAIN:	**1,276 FT²**
PROPOSED NEW RESIDENCE:	4,531 FT²
PROPOSED DRIVE/PARKING:	1,131 FT²
PATIOS/DECKS/WALKS/STEPS:	74 FT²
TOTAL PROPOSED IMPERVIOUS SURFACE:	**5,736 FT²**
TOTAL IMPERVIOUS SURFACE UPON COMPLETION:	**7,012 FT² (40.2%)**

SHEET INDEX:

VICINITY MAP:

PROJECT TEAM:

CLIENT:
PETE + TOBEY BRYANT
701 SHORELAND DR SE
BELLEVUE, WA 98004
425.681.0677

ARCHITECT / APPLICANT:
RIPPLE DESIGN STUDIO - JIM DEARTH
4303 STONE WAY N
SEATTLE, WA 98103
206.913.2333

SURVEYOR:
TERRANE
10801 MAIN STREET SUITE 102
BELLEVUE, WA 98004
425.458.4488

GEOTECHNICAL ENGINEER:
PANGEO - MICHAEL XUE
3213 EASTLAKE AVE E SUITE B
SEATTLE, WA 98102
206.262.0370

CIVIL ENGINEER:
CIVIL ENGINEERING SOLUTIONS - DUFFY ELLIS
2244 NW MARKET ST SUITE B
SEATTLE, WA 98107
206.930.0342

ENVIRONMENTAL CONSULTANT:
EVERGREEN AQUATIC - PETER SUPER
PO BOX 1721
ISSAQUAH, WA 98027
425.677.7166

PROJECT INFO:

PROJECT ADDRESS:
701 SHORELAND DR SE
BELLEVUE, WA 98004

SCOPE OF WORK:
NEW TWO STORY SINGLE FAMILY RESIDENCE WITH ATTACHED GARAGE PER PLAN

ZONE:
R-2.5

LEGAL DESCRIPTION:
MOORLAND ADD LOT 2 TGW SH LDS ADJ OF BELLEVUE SP #81-24 R REC # 8320039001 SD SP DAF LOTS 1 & 2 BLK 4 & LOTS 1 & 2 BLK 11 & PORS VAC MOORLAND AVE & VAC AQUA AVE ADJ

ACCESSOR'S PARCEL NUMBER:
562730-0180

BUILDING CODE + OCCUPANCY:
2015 IRC (ARCHITECTURAL) + IBC (STRUCTURAL)
R-3 SINGLE FAMILY RESIDENTIAL (RESIDENCE)
U STORAGE (GARAGE, STORAGE)

TYPE OF CONSTRUCTION:
TYPE-V-N NON-SPRINKLERED

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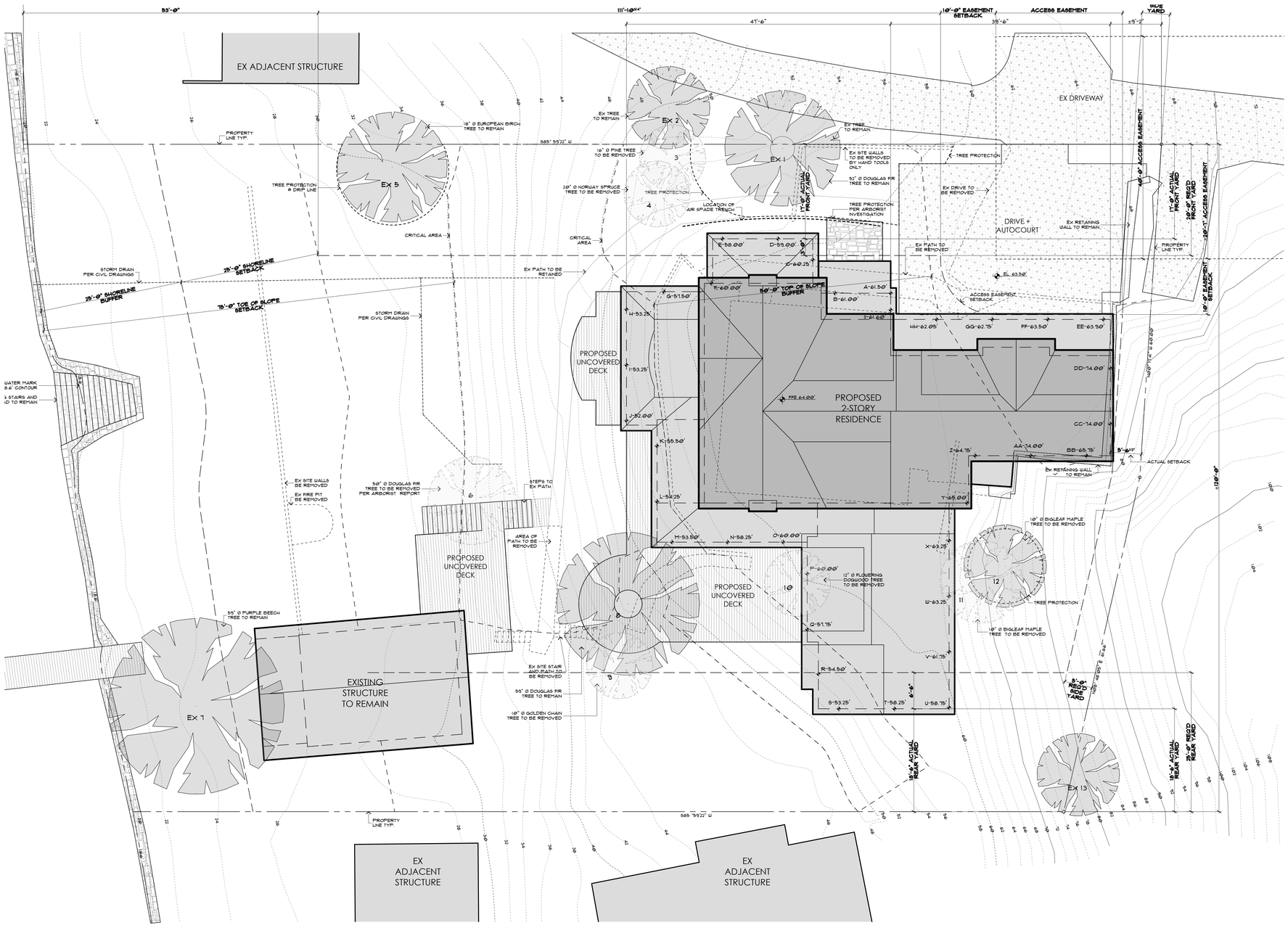
JAMES M DEARTH
STATE OF WASHINGTON

BRYANT RESIDENCE
701 SHORELAND DR SE BELLEVUE, WA



SITE PLAN

SCALE: 1/8" = 1'-0"

SITE PLAN

RELEASE
12 OCT 2017

CA.1

MITIGATION CALCULATIONS:

PROPOSED SHORELINE PERMANENT DISTURBANCE TOTAL:	0 FT²
PROPOSED STEEP SLOPE PERMANENT DISTURBANCE TOTAL:	5,623 FT²
PROPOSED PERMANENT DISTURBANCE TOTAL:	**5,623 FT²**
PROPOSED LANDSCAPE MITIGATION:	**5,763 FT² (102.4%)**

STEEP SLOPE IMPACT CALCULATIONS:

RE: MITIGATION CALCULATIONS, CA.2, FOR RESTORATION / MITIGATION AREAS

STEEP SLOPE CRITICAL AREA (SSCA)	5,454 FT²
PROPOSED PERMANENT STRUCTURE DISTURBANCE:	1,272 FT²
PROPOSED PERMANENT LANDSCAPE DISTURBANCE :	351 FT²
(INCLUDES ALL ORNAMENTAL LANDSCAPE + HARDSCAPE AREAS)	
TOTAL SSCA PERMANENT DISTURBANCE:	**1,623 FT² (29.7%)**
STEEP SLOPE CRITICAL AREA 50'-0" BUFFER	3,504 FT²
PROPOSED PERMANENT STRUCTURE DISTURBANCE:	2,281 FT²
PROPOSED PERMANENT LANDSCAPE DISTURBANCE :	816 FT²
(INCLUDES ALL ORNAMENTAL LANDSCAPE + HARDSCAPE AREAS)	
TOTAL SSCA BUFFER PERMANENT DISTURBANCE:	**3,097 FT² (88.4%)**
STEEP SLOPE CRITICAL AREA 75'-0" STRUCTURE SETBACK	5,480 FT²
PROPOSED PERMANENT STRUCTURE DISTURBANCE:	903 FT²
TOTAL SSCA SETBACK PERMANENT DISTURBANCE:	**903 FT² (16.5%)**
TOTAL OF STEEP SLOPE CRITICAL AREAS	14,438 FT²
PROPOSED STEEP SLOPE PERMANENT DISTURBANCE TOTAL:	**5,623 FT²**
	(38.9% OF TOTAL SSCA'S)

SHORELINE IMPACT CALCULATIONS:

RE: MITIGATION CALCULATIONS, CA.2, FOR RESTORATION / MITIGATION AREAS

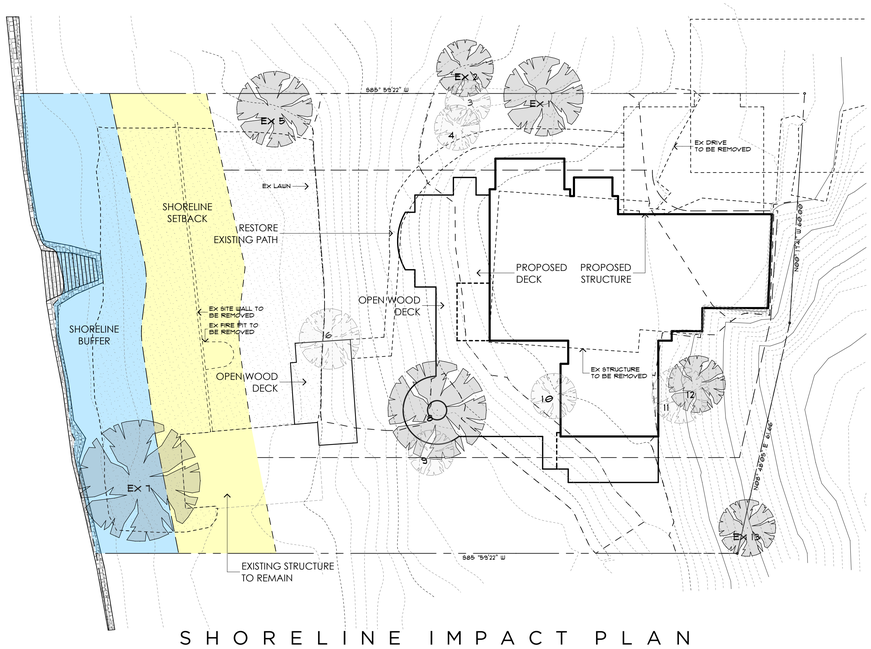
SHORELINE CRITICAL AREA 25'-0" BUFFER	**2,986 FT²**
PROPOSED PERMANENT STRUCTURE DISTURBANCE:	0 FT²
PROPOSED PERMANENT LANDSCAPE DISTURBANCE:	0 FT²
(INCLUDES ALL ORNAMENTAL LANDSCAPE + HARDSCAPE AREAS)	
PROPOSED SHORELINE PERMANENT DISTURBANCE TOTAL:	**0 FT² (0%)**

CRITICAL AREA CALCULATIONS:

LOT AREA:	22,890 FT²
EXISTING RESIDENCE:	2,085 FT²
EXISTING ACCESSORY STRUCTURE:	719 FT²
SHORELINE CRITICAL AREA 25'-0" BUFFER:	2,986 FT²
SHORELINE CRITICAL AREA 25'-0" STRUCTURE SETBACK:	2,662 FT²
STEEP SLOPE CRITICAL AREA ONE:	3,694 FT²
STEEP SLOPE CRITICAL AREA ONE 50'-0" TOP-OF-SLOPE BUFFER:	3,504 FT²
STEEP SLOPE CRITICAL AREA ONE 75'-0" TOE-OF-SLOPE STRUCTURE SETBACK:	4,130 FT²
STEEP SLOPE CRITICAL AREA TWO:	1,760 FT²
STEEP SLOPE CRITICAL AREA TWO 75'-0" TOE-OF-SLOPE STRUCTURE SETBACK:	1,350 FT²
TOTAL ENCUMBERED PROPERTY AREA:	**20,086 FT² (88%)**

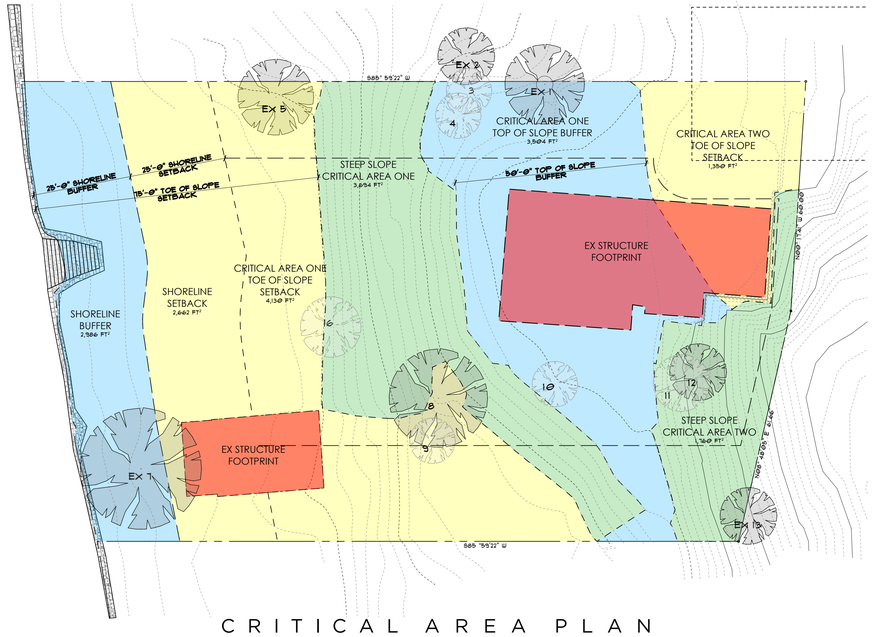
LEGEND:

- EXISTING STRUCTURE
- STEEP SLOPE CRITICAL AREA
- STEEP SLOPE CRITICAL AREA + SHORELINE BUFFER
- STEEP SLOPE CRITICAL AREA + SHORELINE STRUCTURE SETBACK
- PERMANENT STRUCTURE IMPACT AREA
- PERMANENT LANDSCAPE IMPACT AREA
- MITIGATION AREA



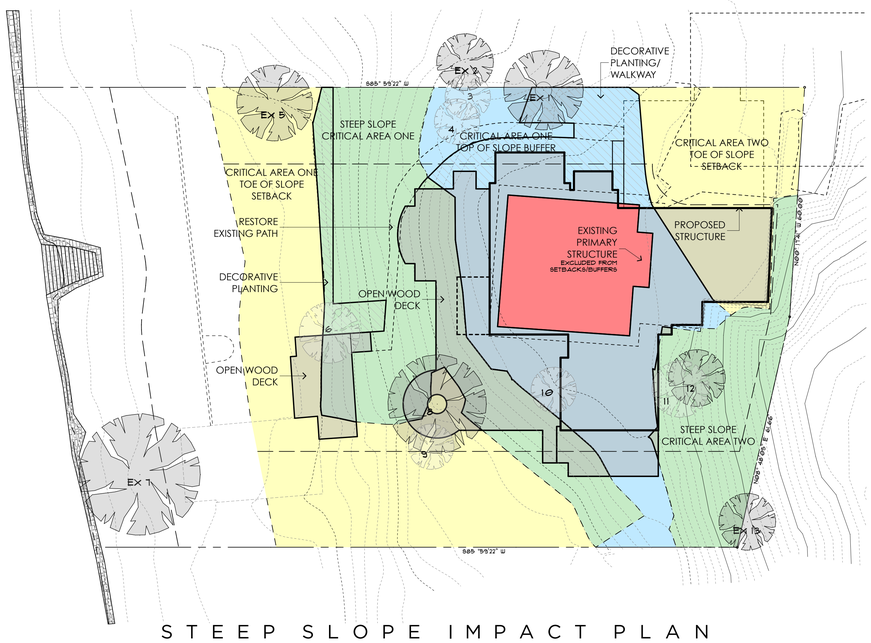
SHORELINE IMPACT PLAN

SCALE: 1/16" = 1'-0"



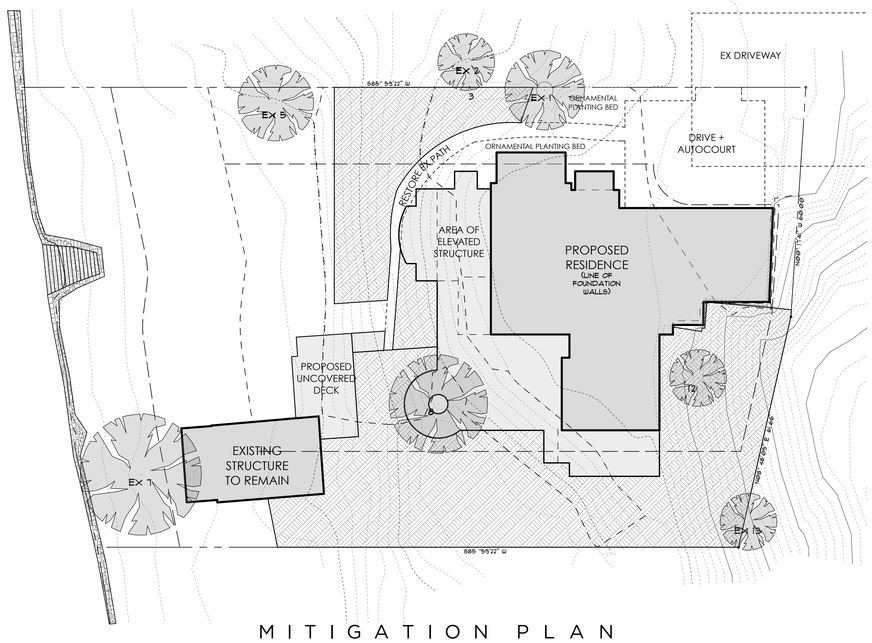
CRITICAL AREA PLAN

SCALE: 1/16" = 1'-0"



STEEP SLOPE IMPACT PLAN

SCALE: 1/16" = 1'-0"



MITIGATION PLAN

SCALE: 1/16" = 1'-0"

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JAMES M DEARTH
STATE OF WASHINGTON

BRYANT RESIDENCE
701 SHORELAND DR SE BELLEVUE, WA

IMPACT + MITIGATION PLANS

RELEASE

CA.2

BRYANT

LANDSCAPE MITIGATION LEGEND:

1 + 18 - DOUGLAS FIR

2 - BIG LEAF MAPLE

19 - WESTERN RED CEDAR

5- SCOULER'S WILLOW

4 - SHORE PINE

3 - BEAKED HAZELNUT

6 - BITTER CHERRY

15 - MOCK ORANGE

8 - OCEAN SPRAY

9 - HIGH BUSH CRANBERRY

7 - SNOWBERRY

10 - RED FLOWERING CURRANT

13 - SWORD FERN

14 - OREGON GRAPE

11 - EVERGREEN HUCKLEBERRY

12 - SALAL

16 - KINNIKINNICK

17 - BEACH STRAWBERRY

PLANTING SCHEDULE:

RE: MITIGATION PLAN FOR SPECIFICATIONS, NOTES + DETAILS

PLANTING TYPE	COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING	QUANTITY	PLANTING NOTES
PLANTING TYPE 01	DOUGLAS FIR	PSUEDOTSUGA MENZIESII	5 GA, 4'-6' BALLED BURLAP OR SIM.	9'-0" O.C.	4	PART SHADE - SUN, DRY - MOIST
PLANTING TYPE 02	BIG LEAF MAPLE	ACER MACROPHYLLUM	5 GA, 4'-6' BALLED BURLAP OR SIM.	9'-0" O.C.	2	SUN - SHADE, DRY - MOIST
PLANTING TYPE 03	BEAKED HAZELNUT	CORYLUS CORNUTA	2 GA, MIN.	6'-0" O.C.	8	PART SHADE - SHADE, DRY - MOIST
PLANTING TYPE 04	SHORE PINE	PINUS CONTORTA	5 GA, 4'-6' BALLED BURLAP OR SIM.	9'-0" O.C.	2	SUN - PART SHADE, DRY - MOIST
PLANTING TYPE 05	SCOULER'S WILLOW	SALIX SCOULERIANA	5 GA, 4'-6' BALLED BURLAP OR SIM.	9'-0" O.C.	3	SUN - PART SHADE, MOIST - WET
PLANTING TYPE 06	BITTER CHERRY	PRUNUS EMARGINATA	5 GA, 4'-6' BALLED BURLAP OR SIM.	9'-0" O.C.	18	SUN - PART SHADE, DRY - MOIST
PLANTING TYPE 07	SNOWBERRY	SYMPHORICARPOS ALBUS	2 GA, MIN.	4'-6' O.C.	23	SUN - SHADE, DRY - MOIST
PLANTING TYPE 08	OCEANSPRAY	HOLODISCUS DISCOLOR	2 GA, MIN.	4'-6' O.C.	18	PART SHADE, DRY
PLANTING TYPE 09	HIGH BUSH CRANBERRY	VIBURNAM EDULE	2 GA, MIN.	4'-6' O.C.	13	SUN - PART SHADE, MOIST
PLANTING TYPE 10	RED FLOWERING CURRANT	RIBES SANGUINEUM	2 GA, MIN.	4'-6' O.C.	60	SUN - PART SHADE, DRY - MOIST
PLANTING TYPE 11	EVERGREEN HUCKLEBERRY	VACCINIUM OVATUM	2 GA, MIN.	24" O.C.	70	PART SHDE -SHADE, DRY - MOIST
PLANTING TYPE 12	SALAL	GAULTHERIA SHALLON	1 GA, MIN.	24" O.C.	63	PART SHADE - SHADE, DRY - MOIST
PLANTING TYPE 13	SWORD FERN	POLYSTICHUM MUNITUM	1 GA	24" O.C.	15	PART SHADE - SHADE, DRY - MOIST
PLANTING TYPE 14	OREGON GRAPE	MAHONIA NERVOSA	1 GA	3'-0" O.C.	18	DRY - MOIST
PLANTING TYPE 15	MOCK ORANGE	PHILADELPHUS LEWISII	2 GA, MIN.	4'-6' O.C.	11	SUN - PART SHADE, DRY - MOIST
PLANTING TYPE 16	KINNIKINNICK	ARCTOSTAPHYLOS UVA-URSI	1 GA	24" O.C.	972 SF	SUN, DRY
PLANTING TYPE 17	COASTAL STRAWBERRY	FRAGARIA CHILOENSIS	4" POT	24" O.C.	986 SF	PART-SHADE - SUN, DRY
PLANTING TYPE 18	DOUGLAS FIR	PSEUDOTSUGA MENZIESII	2 GA, 3' BALLED BURLAP OR SIM.	3'-0" O.C.	5	PART SHADE - SUN, DRY - MOIST
PLANTING TYPE 19	WESTERN RED CEDAR	THUJA PLICATA	5 GA, 4'-6' BALLED BURLAP OR SIM.	9'-0" O.C.	6	PART SHADE - SUN, DRY - MOIST

LANDSCAPE MITIGATION

SCALE: 1/8" = 1'-0"

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BRYANT RESIDENCE
701 SHORELAND DR SE BELLEVUE, WA

LANDSCAPE MITIGATION PLANS

RELEASE

CA.3

BRYANT

MITIGATION MONITORING, CONTINGENCY, AND MAINTENANCE PLAN (OWNER):

OVERVIEW

THIS MITIGATION MONITORING AND MAINTENANCE PLAN HAS BEEN PREPARED TO CONFORM TO THE LUC 20.25H.220(B). THE MITIGATION COVERED BY THIS PLAN INCLUDES THE ENHANCEMENT OF ON-SITE CRITICAL AREAS, BUFFERS, AND SETBACKS.

THE PROPOSED MITIGATION ADDRESSES CONSTRUCTION IMPACTS RELATED TO A NEW SINGLE FAMILY RESIDENCE WITHIN STEEP SLOPE AND BUFFER AREAS AS WELL AS VEGETATION MANAGEMENT ACTIVITIES TO OCCUR WITHIN DESIGNATED SHORELINE BUFFER AREAS.

THE PROPOSED ENHANCEMENT AREAS HAVE A HIGH POTENTIAL FOR IMPROVEMENT BECAUSE THE AREAS CURRENTLY COMPRISES DENSE NOXIOUS WEED AND NON-NATIVE ORNAMENTAL PLANT SPECIES, WHICH AFFORD LITTLE HABITAT VALUE TO NATIVE WILDLIFE.

PROPOSED MITIGATION INCLUDES: 1) THE REMOVAL OF NON-NATIVE/NOXIOUS WEED SPECIES; 2) THE AMENDMENT OF EXISTING SOIL CONDITIONS; AND 3) THE INSTALLATION OF DENSE NATIVE PLANTINGS COMPRISING TREES, SHRUBS, AND GROUNDCOVERS.

PLAN GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS:

MITIGATION PLAN GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS ARE OUTLINED IN THE TABLE 1 (BELOW). THE GOALS AND OBJECTIVES OF THIS PLAN ARE CONSIDERED ACHIEVED WHEN THE PERFORMANCE STANDARDS ARE SATISFIED.

MONITORING PLAN (5 YEAR):

AS-BUILT/BASELINE MONITORING

SCHEDULE: **IMMEDIATELY FOLLOWING CONSTRUCTION**

FOLLOWING COMPLETION OF THE WORK SHOWN ON THE APPROVED MITIGATION PLAN, AN AS-BUILT OF THE MITIGATION WORK SHALL BE COMPLETED. THE AS-BUILT SHALL SUMMARIZE THE COMPLETED MITIGATION WORK AS WELL AS ANY DEVIATIONS FROM THE APPROVED VERSION OF THIS PLAN.

AT THE TIME OF THE AS-BUILT, BASELINE MONITORING DATA SHALL ALSO BE COLLECTED AND PERMANENT PHOTO POINTS SHALL BE ESTABLISHED TO PHOTOGRAPHICALLY DOCUMENT REPRESENTATIVE CONDITIONS WITHIN THE MITIGATION AREAS. BASELINE MONITORING DATA COLLECTED AND REPORTED SHALL BE CONSISTENT WITH THAT DESCRIBED FOR A "DETAILED SITE ASSESSMENT" (SEE ANNUAL MONITORING BELOW).

AS-BUILT AND BASELINE MONITORING SHALL BE COMPLETED BY A "QUALIFIED PROFESSIONAL" AS DEFINED BY BELLEVUE MUNICIPAL CODE.

THE AS-BUILT SHALL BE SUBMITTED TO THE **CITY OF BELLEVUE** NO LATER THAN 30 DAYS FROM THE DATE THAT THE WORK SHOWN ON THIS PLAN HAS BEEN COMPLETED.

ANNUAL MONITORING

DURATION: **5 YEARS**

SCHEDULE: **ANNUAL MONITORING SHALL BE CONDUCTED IN AUGUST/SEPTEMBER OF THE FIRST THROUGH FIFTH YEARS FOLLOWING CONSTRUCTION (YEAR 1 THROUGH YEAR 5).**

FOLLOWING ACCEPTANCE OF THE AS-BUILT BY THE **CITY OF BELLEVUE**, ANNUAL MONITORING SHALL OCCUR PER THAT DESCRIBED IN "DETAILED SITE ASSESSMENT" (BELOW).

ANNUAL MONITORING SHALL BE COMPLETED BY A "QUALIFIED PROFESSIONAL" AS DEFINED BY BELLEVUE MUNICIPAL CODE.

THE RESULTS OF EACH MONITORING SHALL BE SUMMARIZED IN A WRITTEN REPORT AND SUBMITTED TO THE **CITY OF BELLEVUE** NO LATER THAN NO LATER THAN 30 DAYS FOLLOWING EACH MONITORING ASSESSMENT.

DETAILED SITE ASSESSMENT (YEAR 1 TO YEAR 5):

DETAILED SITE ASSESSMENTS SHALL BE CONDUCTED ANNUALLY FOR A PERIOD OF **5 YEARS**. THE PURPOSE OF EACH DETAILED SITE ASSESSMENT IS TO EVALUATE CONDITIONS WITHIN THE MITIGATION AREAS PER THE CURRENT YEAR'S PERFORMANCE STANDARDS. THE FOLLOWING INFORMATION SHALL BE COLLECTED WITHIN ALL MITIGATION AREAS AND ASSESSED RELATIVE TO THE PERFORMANCE STANDARDS ESTABLISHED FOR THE PROJECT:

- **THE PERCENT SURVIVAL OF INSTALLED PLANT STOCK - YEAR 1 AND YEAR 2 ONLY.** A DIRECT COUNT INVENTORY AND ASSESSMENT OF ALL INSTALLED PLANT STOCK SHALL BE USED TO EVALUATE PERCENT SURVIVAL. THE RATIONALE FOR POOR CONDITIONS, IF PRESENT, WILL BE DETERMINED TO THE EXTENT FEASIBLE.
- **THE PERCENT COVERAGE PROVIDED BY NATIVE PLANT SPECIES - ALL YEARS.** NATIVE PLANT SPECIES PERCENT COVERAGE SHALL BE ASSESSED USING APPROPRIATELY SIZED SAMPLE PLOTS OR LINE INTERCEPT TRANSECTS.
- **THE SPECIES COMPOSITION OF AND PERCENT COVERAGE PROVIDED BY NOXIOUS WEED SPECIES - ALL YEARS.** SPECIES COMPOSITION AND PERCENT COVERAGE BY NOXIOUS WEEDS SHALL BE ASSESSED USING SAMPLE PLOTS OR LINE INTERCEPT TRANSECTS.

IN ADDITION TO THE DATA COLLECTION AND ANALYSIS REGARDING PLANT COMMUNITY CONDITIONS, PHOTOGRAPHS OF THE MITIGATION AREAS SHALL BE TAKEN FROM THE PERMANENT PHOTO POINTS ESTABLISHED DURING THE AS-BUILT.

CONTINGENCY PLAN

SHOULD ANY COMPLIANCE MONITORING ASSESSMENT REVEAL THAT THE PERFORMANCE STANDARDS FOR THE RESPECTIVE YEAR ARE NOT SATISFIED, THE PERMITTEE SHALL WORK WITH THE **CITY OF BELLEVUE** TO DEVELOP A DETAILED CONTINGENCY PLAN TO ADDRESS THE DEFICIENCY(IES). CONTINGENCY PLANS CAN INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING ACTIONS:

- ADDITIONAL PLANT INSTALLATION;
- EROSION CONTROL;
- HERBIVORY PROTECTION;
- MODIFICATION TO ANY IRRIGATION REGIME; AND/OR
- PLANT SUBSTITUTIONS OF TYPE, SIZE, QUANTITY, AND LOCATION.

SUCH CONTINGENCY PLAN SHALL BE SUBMITTED TO THE **CITY OF BELLEVUE** NO LATER THAN JANUARY 31 OF ANY YEAR WHEN DEFICIENCIES ARE DISCOVERED. UNLESS OTHERWISE APPROVED BY THE **CITY OF BELLEVUE**, ACTIONS SPECIFIED ON AN APPROVED CONTINGENCY PLAN MUST BE COMPLETED WITHIN 60 DAYS. IF THE FAILURE IS SUBSTANTIAL, THE **CITY OF BELLEVUE** MAY EXTEND THE COMPLIANCE MONITORING PERIOD FOR THE MITIGATION WORK.

MAINTENANCE PLAN

THIS SECTION PROVIDES A GENERAL OVERVIEW OF THE MAINTENANCE PROGRAM NECESSARY TO ENSURE THE PERFORMANCE STANDARDS ESTABLISHED FOR THIS PLAN ARE SATISFIED.

NOXIOUS WEED AND NON-NATIVE CONTROL

FOLLOWING PLANT INSTALLATION AND AT REGULAR INTERVALS DURING THE MONITORING PERIOD, NOXIOUS WEED AND NON-NATIVE PLANT SPECIES CONTROL SHALL OCCUR ON A SPOT TREATMENT BASIS WITHIN ALL MITIGATION AREAS. TARGET NOXIOUS WEED SPECIES SHALL INCLUDE THE FOLLOWING:

- ALL CLASS "A", "B", AND "C" NOXIOUS WEEDS IDENTIFIED ON THE LATEST KING COUNTY NOXIOUS WEED LIST.
- THE FOLLOWING ADDITIONAL SPECIES: BAMBOO (ALL SPECIES), ENGLISH IVY (HEDERA HELIX), ENGLISH HOLLY (ILEX AQUIFOLIUM), KNOTWEED (POLYGONUM SPP.), HIMALAYAN BLACKBERRY (RUBUS ARMENIACUS), AND CUTLEAF (EVERGREEN) BLACKBERRY (R. LACINIATUS).
- ANY OTHER NON-NATIVE OR ORNAMENTAL PLANT SPECIES.

CONTROL WORK SHALL CONSIST OF THE CUTTING AND REMOVAL FROM THE SITE OF ALL ROOTS, STEMS, CANES, RUNNERS, SHOOTS, SEED PODS, FRUITING BODIES, AND LEAVES PER THE FOLLOWING METHODS:

- HAND PULLING.
- MANUALLY CUTTING USING MACHETES, LOPPERS, AND/OR CLIPPERS.

DURING CONTROL WORK, EXISTING OR PLANTED NATIVE VEGETATION SHALL BE PROTECTED FROM DAMAGE.

GENERAL MAINTENANCE

INSTALLED PLANTS SHALL BE MAINTAINED AT REGULAR INTERVALS DURING THE MONITORING PERIOD TO PROMOTE THE SUCCESSFUL ESTABLISHMENT AND VIGOROUS GROWTH OF INSTALLED PLANT STOCK.

GENERAL MAINTENANCE SHALL INCLUDE:

- WEEDING THE BASE OF EACH INSTALLED PLANT.
- RE-APPLYING BARK MULCH TO MAINTAIN A 6" MINIMUM APPLIED THICKNESS - YEAR 1 ONLY.
- THE PRUNING OF INSTALLED PLANTS TO REMOVE DEAD WOOD AND PROMOTE VIGOROUS PLANT GROWTH AND PROPER FORM.
- THE REPLACEMENT OF PLANTS IN DISTRESS AND/OR THAT ARE DISEASED.
- THE REMOVAL OF TRASH, LITTER, AND/OR OTHER NON-DECOMPOSING DEBRIS.

TEMPORARY IRRIGATION

TEMPORARY IRRIGATION SHALL BE PROVIDED FOR TWO (2) GROWING SEASONS FOLLOWING PLANT INSTALLATION PER THE SPECIFICATIONS SHOWN ON THESE PLANS.

TABLE 1: MITIGATION PLAN GOALS, OBJECTIVES, & PERFORMANCE STANDARDS

GOAL:	OBJECTIVE:	PERFORMANCE STANDARDS:
TO ENHANCE HABITAT FUNCTIONS AND VALUES BY PROVIDING A DENSE, STRUCTURALLY DIVERSE, AND SPECIES RICH NATIVE PLANT COMMUNITY WITHIN ON-SITE CRITICAL AREAS, BUFFERS, AND SETBACKS.	1. FULL INITIAL CONTROL OF NOXIOUS WEED SPECIES AND THEN TO MINIMIZE THE GENERAL PRESENCE OF NOXIOUS WEED SPECIES THROUGHOUT THE MONITORING PERIOD. 2. INSTALL AND SUCCESSFULLY ESTABLISHMENT DENSE NATIVE PLANTINGS (TREES, SHRUBS, AND GROUNDCOVER) WITHIN SHORELINE AND STEEP SLOPE BUFFERS AND SETBACKS.	*SURVIVAL* • **100% SURVIVAL** BY INSTALLED PLANT STOCK AFTER THE FIRST GROWING SEASON. THIS STANDARD CAN BE ACHIEVED STRICTLY THROUGH SURVIVAL OR THROUGH A COMBINATION OF SURVIVAL AND PLANT REPLACEMENT. • **80% SURVIVAL** BY INSTALLED PLANT STOCK AFTER THE SECOND GROWING SEASON. *NATIVE PLANT SPECIES COVERAGE* • **60% AVERAGE COVERAGE** BY NATIVE WOODY PLANT SPECIES AFTER THE FIFTH GROWING SEASON. COVERAGE MAY INCLUDE DESIRABLE NATIVE COLONIZING OR VOLUNTEER SPECIES. *NATIVE PLANT SPECIES DIVERSITY* • SUCCESSFULLY ESTABLISH A MINIMUM OF 2 TREE SPECIES, 6 SHRUB SPECIES, AND 2 GROUNDCOVER SPECIES BY THE END OF THE 5 YEAR MONITORING PERIOD. *NON-NATIVE OR NOXIOUS WEED COVERAGE* • **LESS THAN 10% COVERAGE** BY ALL CLASS "A", "B", AND "C" NOXIOUS WEEDS IDENTIFIED ON THE LATEST KING COUNTY NOXIOUS WEED LIST AND THE FOLLOWING ADDITIONAL SPECIES: BAMBOO (ALL SPECIES) ENGLISH IVY (HEDERA HELIX) ENGLISH HOLLY (ILEX AQUIFOLIUM KNOTWEED (POLYGONUM SPP.) HIMALAYAN BLACKBERRY (RUBUS ARMENIACUS), CUTLEAF (EVERGREEN) BLACKBERRY (R. LACINIATUS).

PLANT INSTALLATION SPECIFICATIONS (CONTRACTOR):

PART 1: GENERAL

ALL WORK SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS SHOWN ON THESE DRAWINGS AND SHALL CONFORM TO ALL APPLICABLE CODES, LAWS, AND ORDINANCES.

CONTRACTOR SHALL FURNISH ALL MATERIALS, EQUIPMENT, LABOR, AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK SHOWN ON THESE DRAWINGS AND SHALL INCLUDE ALL TOOLS, MATERIALS, PERMITS, INSPECTIONS, TESTS, AND OTHER RELATED ITEMS.

WORK SHALL BE COMPLETED BY PERSONS EXPERIENCED IN THE MITIGATION WORK SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL RECOGNIZE THAT ACTUAL SITE CONDITIONS MAY VARY BASED ON SEASON AND/OR TIME OF YEAR.

CONTRACTOR SHALL ACCOMMODATE REALIZED AND ANTICIPATED SITE CONDITIONS WHEN COMPLETING THE WORK SHOWN ON THESE DRAWINGS.

TAKE NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY, PERSONS, WORK IN PROGRESS, STRUCTURES, UTILITIES, WALKS, CURBS, AND PAVED SURFACES DURING WORK. FIELD LOCATE, VERIFY DEPTH OF, AND ADEQUATELY PROTECT ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF WORK. DAMAGE TO UTILITIES INCURRED OR ARISING FROM THIS CONTRACT SHALL BE PAID BY CONTRACTOR.

ALL AREAS OF WORK SHALL BE KEPT CLEAN, NEAT, AND ORDERLY AT ALL TIMES. ALL PAVED AREAS ARE TO BE CLEANED DAILY FOLLOWING WORK.

OWNER SHALL BE NOTIFIED IN WRITING OF DEVIATIONS TO OR CONFLICTS WITHIN THESE DRAWINGS AND/OR SITE CONDITIONS. EXTRA WORK ARISING FROM FAILURE TO DO SO SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

PRIOR TO START OF ANY WORK, CONTRACTOR SHALL REQUEST AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH OWNER.

PRIOR TO PRE-CONSTRUCTION CONFERENCE, CONTRACTOR SHALL ACCURATELY FLAG PLANTING AREA LIMITS IN A HIGHLY VISIBLE MANNER. FLAGGING SHALL BE MAINTAINED THROUGHOUT WORK UNTIL FINAL INSPECTION BY OWNER.

PART 2: MATERIALS

2.1 GENERAL

PLANT MATERIAL SIZE, QUALITY, AND QUANTITY SHALL MEET THE STANDARDS LISTED ON THESE DRAWINGS.

PLANT MATERIAL SHALL BE OF ACCEPTED SIZE STANDARDS AND PROPORTIONS AS SPECIFIED IN AMERICAN STANDARD NURSERY STOCK (LATEST EDITION). ALL PLANTS SHALL BE OF NORMAL HABIT OF GROWTH AND SHALL BE HEALTHY, VIGOROUS, AND FREE OF DISEASE, INSECT EGGS, ADULTS, AND LARVAE.

SCIENTIFIC NOMENCLATURE SHALL CONFORM TO STANDARD PLANT NAMES, LATEST EDITION. NAMES NOT PRESENT IN THIS LISTING SHALL CONFORM TO ACCEPTED SCIENTIFIC NOMENCLATURE IN THE NURSERY TRADE. FOR TREES AND SHRUBS, NO LESS THAN 10 PERCENT OF EACH VARIETY OR SPECIES SHALL BE ACCURATELY LABELED AT THE TIME OF DELIVERY TO THE SITE. WHERE LABELED, PLANT MATERIALS SHALL HAVE DURABLE, LEGIBLE LABELS STATING THE CORRECT SCIENTIFIC PLANT NAME.

OVERSIZE PLANT MATERIALS ARE ACCEPTABLE WITH APPROVAL OF THE OWNER, BUT WITHOUT AN INCREASE IN THE CONTRACT PRICE. PLANT MATERIALS OF A SIZE REDUCED FROM THOSE SPECIFIED WILL NOT BE PERMITTED. ANY PLANT SIZE CHANGE SHALL BE APPROVED BY OWNER PRIOR TO PLANT DELIVERY TO SITE.

PLANT MATERIALS SHALL BE PACKAGED WITH CARE FOR TRANSIT TO THE SITE. BRANCHES SHALL BE TIED BACK, AND BARK SHALL BE PROTECTED TO PREVENT DAMAGE FROM CHAFING BY ROPES AND WIRES. PLANT MATERIALS IN STORAGE SHALL BE PROTECTED FROM WEATHER AND PACKED TO PROVIDE PROTECTION.

PLANT MATERIAL DELIVERY SHALL BE TIMED APPROPRIATELY WITH INSTALLATION TO AVOID EXTENDED STORAGE OF LIVE MATERIALS ON-SITE.

A MINIMUM OF SEVEN (7) DAYS NOTICE SHALL BE PROVIDED TO THE OWNER PRIOR TO PLANT MATERIAL DELIVERY TO THE SITE. THE OWNER SHALL INSPECT ALL PLANT MATERIALS AT THE TIME OF DELIVERY. THE OWNER RESERVES THE RIGHT TO REQUIRE SUBSTITUTION OR REPLACEMENT OF PLANT MATERIALS DETERMINED TO BE DAMAGED OR OTHERWISE UNSUITABLE AT THE TIME OF DELIVERY TO THE SITE. ALL REJECTED PLANT MATERIAL SHALL BE REMOVED FROM THE SITE IMMEDIATELY.

ONCE ACCEPTED ON-SITE, PLANT MATERIALS SHALL BE PROTECTED AT ALL TIMES FROM THEFT, VANDALISM, AND DAMAGE, INCLUDING BUT NOT LIMITED TO THAT CAUSED BY ANIMALS, HUMANS, DROUGHT, WATER, FROST OR FREEZING CONDITIONS, AND WIND.

2.2 PLANT MATERIAL SOURCE

PLANTS SHALL BE DERIVED FROM STOCK ACCLIMATED TO WESTERN WASHINGTON ENVIRONMENTAL CONDITIONS, HAVING BEEN CONSISTENTLY CULTIVATED AND GROWN UNDER SIMILAR CONDITIONS.

2.3 PLANT MATERIAL QUALITY

PLANT MATERIAL SHALL BE NORMAL IN PATTERN OF GROWTH, HEALTHY, WELL-BRANCHED AND HAVE ALL LEADERS AND BUDS INTACT. TREES SHALL NOT HAVE SUNSCALDS, DISFIGURING KNOTS, FRESH CUTS OF LIMBS, DAMAGED LEADERS, AND/OR DEFORMED TRUNKS.

PLANT MATERIALS SHALL BE NATIVE TO THE NORTHWEST, PREFERABLY THE PUGET SOUND REGION OF WASHINGTON STATE. PLANT MATERIALS SHALL BE PROPAGATED FROM NATIVE STOCK; NO CULTIVARS OR HORTICULTURAL VARIETIES ARE ALLOWED.

WHERE PROVIDED, CONTAINERIZED PLANT STOCK SHALL BE GROWN IN A CONTAINER LONG ENOUGH TO DEVELOP A ROOT SYSTEM THAT REACHES THE

EDGES OF THE CONTAINER IN WHICH IT HAS GROWN. TREES AND SHRUBS SHALL BE WELL ROOTED AND SHALL HAVE SUFFICIENT ROOT MASS TO HOLD TOGETHER THE SOIL, IN WHICH PLANT IS GROWING, WHEN REMOVED FROM THE POT.

CONSERVATION GRADE OR SALVAGED PLANT STOCK IS NOT ACCEPTABLE FOR USE.

2.4 MULCH

SEE PLANTING DETAILS.

PART 3: EXECUTION

3.1 GENERAL

INSTALLATION OF PLANT MATERIALS SHALL OCCUR BETWEEN NOVEMBER 15 AND JANUARY 15. IF SCHEDULE OF PLANT PROCUREMENT OR SITE CONDITIONS REQUIRE INSTALLATION DURING ALTERNATIVE DATES, WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM OWNER PRIOR TO PLANT INSTALLATION.

PLANT MATERIAL INSTALLATION SHALL NOT OCCUR DURING FREEZING WEATHER OR WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET. PLANT MATERIALS HAVING FROZEN ROOTBALLS SHALL NOT BE INSTALLED UNTIL CONDITIONS ARE SUCH THAT PLANTS ARE EASILY REMOVED FROM CONTAINERS.

PLANT MATERIAL STORED ON-SITE SHALL BE ORGANIZED IN ROWS AND MAINTAINED AND PROTECTED AT NO ADDITIONAL COST.

PLANT MATERIAL THAT CANNOT BE PLANTED WITHIN ONE (1) DAY AFTER DELIVERY TO THE SITE SHALL BE "HEELED-IN" OR OTHERWISE STORED TEMPORARILY IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES IN A MANNER THAT DOES NOT COMPROMISE THE HEALTH OF THE PLANT MATERIALS. PLANT STORAGE SHALL NOT BE LONGER THAN FOUR (4) WEEKS.

PLANT MATERIALS STORED UNDER TEMPORARY CONDITIONS SHALL BE KEPT MOIST AND PROTECTED FROM ADVERSE WEATHER CONDITIONS.

A MINIMUM OF SEVEN (7) DAYS NOTICE SHALL BE PROVIDED TO THE OWNER PRIOR TO PLANT INSTALLATION. THE OWNER SHALL BE KEPT INFORMED AS TO DAILY WORK PROGRESS THROUGHOUT PLANT INSTALLATION.

PLANT LOCATIONS SHALL BE AS DEPICTED ON SHEET 4, SUBJECT TO RELATED DRAWING NOTES. THE OWNER SHALL REVIEW ALL PLANT LOCATIONS PRIOR TO PLANT MATERIAL INSTALLATION. THE OWNER RESERVES THE RIGHT TO ADJUST PLANT MATERIAL LOCATION(S) WITHIN PLANTING AREAS PRIOR TO PLANT MATERIAL INSTALLATION.

PLANT MATERIALS SHALL NOT BE DRAGGED WITHOUT PROPER ROOT AND/OR BRANCH PROTECTION. CONTAINERIZED PLANT MATERIALS SHALL BE LIFTED BY CONTAINER ONLY. PLANT MATERIALS SHALL NOT BE DROPPED OR ROOT SYSTEMS DAMAGED.

PLANT MATERIALS SHALL BE INSTALLED AS PER APPLICABLE NOTES AND DETAILS DEPICTED ON THIS DRAWING SET.

ALL PLANTS SHALL BE THOROUGHLY WATERED WITHIN 24 HOURS AFTER PLANTING.

ALL PLANTS SHALL BE MARKED WITH HIGH VISIBILITY FLAGGING AFTER INSTALLATION. FLAGGING SHALL BE ATTACHED TO THE MAIN STEM, LEADER, OR BRANCH OF THE AFFECTED PLANT.

3.2 INSTALLATION

EXCAVATE A PLANTING HOLE PER THE APPLICABLE DETAILS SHOWN ON THESE DRAWINGS.

REMOVE PLANT FROM CONTAINER WITH ROOTBALL COMPLETELY INTACT. IF CONTAINER STOCK IS ROOTBOUND, SLASH ROOTS VERTICALLY WITH A SHARP KNIFE ALONG THE OUTSIDE OF ROOTBALL A MINIMUM OF THREE (3) PLACES BEFORE PLANTING. IF PLANT HAS MINOR ROOT DAMAGE, ROOT-PRUNE AS NECESSARY TO REMOVE BROKEN OR DAMAGED ROOTS.

INSERT ROOTBALL INTO PLANTING HOLE WITHOUT BENDING OR DAMAGING THE ROOTS. SPREAD OR "BUTTERFLY" ROOTBALL AND PLACE ROOT COLLAR 1" ABOVE THE FINISHED GRADE.

USE MOIST, PULVERIZED, NATIVE SOIL FOR BACKFILLING, ENSURING THAT GOOD CONTACT WITH ROOTBALL IS MADE. FROZEN, MUDDY, AND/OR EXCESSIVELY ROCKY MIXTURES SHALL NOT BE USED FOR BACKFILLING. IF BACKFILL IS UNSUITABLE, COMMERCIALLY AVAILABLE TOPSOIL WITH A HIGH ORGANIC CONTENT MAY BE USED TO PROPERLY BACKFILL PLANTING HOLE.

MIDWAY THROUGH THE BACKFILL PROCESS, WATER THOROUGHLY TO SETTLE SOIL.

COMPLETE BACKFILL AT FINISHED GRADE AND ENSURE THE PLANT IS AT PROPER ALIGNMENT. WATER AGAIN TO SETTLE SOIL AND ADD ADDITIONAL BACKFILL AS NECESSARY IF ROOTS BECOME EXPOSED.

FLAG EACH INSTALLED PLANT.

3.3 MULCH

SEE DETAILS.

PART 4: PROVISIONAL ACCEPTANCE

AFTER COMPLETION OF THE PLANT INSTALLATION WORK COVERED BY THESE DRAWINGS, AN INSPECTION SHALL BE REQUESTED FROM THE OWNER. WHEN WORK COVERED BY THESE DRAWINGS IS COMPLETE AS DETERMINED BY OWNER, PROVISIONAL ACCEPTANCE WILL BE CERTIFIED IN WRITING BY THE OWNER.

PART 5: MAINTENANCE

CONTRACTOR SHALL MAINTAIN PLANTED AREAS UNTIL GUARANTEE PERIOD ACCEPTANCE IS GIVEN. MAINTENANCE SHALL INCLUDE, WEEDING AROUND THE BASE OF INSTALLED PLANTS, PRUNING OF INSTALLED PLANTS, AND REPLACEMENT OF PLANTS THAT APPEAR TO BE IN DISTRESS. CONTROL IS REQUIRED OF ALL CLASS "A", "B" AND "C" NOXIOUS WEEDS IDENTIFIED ON THE LATEST KING COUNTY NOXIOUS WEED CONTROL LIST AS WELL AS THE FOLLOWING ADDITIONAL SPECIES: ENGLISH IVY (*HEDERA HELIX*), ENGLISH HOLLY (*ILEX AQUIFOLIUM*), HIMALAYAN BLACKBERRY (*RUBUS ARMENIACUS*), AND CUTLEAF BLACKBERRY (*R. LACINIATUS*). A MAINTENANCE PLAN SHALL BE PROVIDED BY CONTRACTOR THAT DESCRIBES, IN DETAIL, THE SPECIFIC MAINTENANCE PROGRAM DEVELOPED TO SATISFY THE MAINTENANCE REQUIREMENTS OF THIS PLAN. A MAINTENANCE PLAN SHALL BE APPROVED BY OWNER PRIOR TO ISSUANCE OF PROVISIONAL ACCEPTANCE.

PART 6: GUARANTEE

6.1 GENERAL

PLANTS SHALL BE GUARANTEED FOR ONE YEAR AGAINST DEFECTS OF MATERIALS AND WORKMANSHIP. THE GUARANTEE PERIOD BEGINS AT THE DATE OF THE PROVISIONAL ACCEPTANCE AND SHALL EXTEND FOR ONE YEAR.

THE GUARANTEE REQUIREMENTS SHALL BE APPLICABLE TO ANY GROWING CONDITIONS THROUGH WHICH PLANTS OF LIKE KIND COULD BE EXPECTED TO SURVIVE AND ANY DEFORMITY OR CAUSE OF DEATH, WHICH COULD BE ATTRIBUTED TO, OR AFFECTED BY, THE PHYSIOLOGICAL CONDITIONS OF THE INSTALLED PLANT. THIS GUARANTEE SHALL NOT APPLY TO PLANT LOSSES DUE TO ABNORMAL WEATHER CONDITIONS SUCH AS FLOODS, EXCESSIVE WIND DAMAGE, DROUGHT, SEVERE FREEZING, OR ABNORMAL RAINS, AS DETERMINED BY THE OWNER. INSTALLED PLANT MATERIALS SHALL BE MAINTAINED DURING THE GUARANTEE PERIOD IN GENERAL ACCORDANCE WITH THE APPROVED MAINTENANCE PLAN PROVIDED BY THE CONTRACTOR.

THE OWNER MAY REQUIRE REPLACEMENT OF DEAD OR DEFECTIVE PLANTS PRIOR TO THE END OF THE GUARANTEE PERIOD AT NO ADDITIONAL COST. WHERE REQUIRED, PLANTS SHALL BE REPLACED WITH THE SPECIES AND SIZE AS INDICATED IN THE PLANT SCHEDULE AND ACCORDING TO THE PLANTING DETAILS AND SPECIFICATIONS SHOWN ON THESE DRAWINGS UNLESS OTHERWISE DIRECTED IN WRITING BY THE OWNER. UNLESS OTHERWISE APPROVED, REPLACEMENT PLANTS SHALL BE MADE WITHIN SEVEN (7) DAYS OF NOTIFICATION FROM OWNER.

THE CONTRACTOR HAS THE RIGHT DURING THE ENTIRE WARRANTY PERIOD TO ENTER UPON THE PROPERTY FOR INSPECTION AND CURATIVE TREATMENT OF ANY MATERIAL NEEDING SUCH AND WHICH ARE STILL UNDER WARRANTY. THE OWNER SHALL BE NOTIFIED IN ADVANCE OF ANY CORRECTIVE TREATMENT MEASURES SO AS TO ARRANGE FOR CONVENIENT ACCESS TO THE AREA. CURATIVE WORK SHALL OCCUR AS SOON AS POSSIBLE AFTER DEFICIENCIES BECOME APPARENT AND WEATHER AND SEASON PERMIT.

AFTER EACH PLANT REPLACEMENT, IF ANY, A MARKED PLANTING PLAN SHOWING THE LOCATION OF EACH ITEM REPLACED AT THAT TIME SHALL BE PROVIDED TO OWNER. REPLACEMENT PLANTS SHALL BE MARKED WITH COLORED SURVEY FLAGGING AND SHALL BE GUARANTEED FOR ONE FULL YEAR FOLLOWING PLANTING.

6.2 SURVIVORSHIP

ANY INSTALLED TREE OR SHRUB THAT IS GREATER TO OR EQUAL TO 25 PERCENT DEAD OR DISFIGURED WILL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO ADDITIONAL CHARGE. A TREE WILL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK OR WHEN A MINIMUM OF 25 PERCENT OF THE CROWN IS DEAD. PLANTS WILL BE CONSIDERED DISFIGURED WHEN EXCESSIVE DEAD WOOD HAS BEEN REMOVED OR WHEN THE SYMMETRY OR TYPICAL HABIT OF GROWTH HAS BEEN IMPAIRED BY THE REMOVAL OF THE DEAD WOOD.

6.3 GUARANTEE PERIOD ACCEPTANCE

ONE YEAR AFTER PROVISIONAL ACCEPTANCE, A FINAL INSPECTION OF THE WORK COVERED BY THIS CONTRACT SHALL BE REQUESTED BY CONTRACTOR FROM OWNER. INSTALLED PLANTS THAT ARE DETERMINED TO BE DEAD OR OTHERWISE NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE OWNER, SHALL BE REMOVED FROM THE SITE AND SHALL BE REPLACED AS SOON AS CONDITIONS PERMIT. UPON COMPLETION OF THESE REQUIREMENTS, GUARANTEE PERIOD ACCEPTANCE WILL BE CERTIFIED IN WRITING BY THE OWNER.

GENERAL NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CODES, ORDINANCES, AND LAWS.
2. A COPY OF THESE APPROVED DRAWINGS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
3. THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THESE DRAWINGS, IF ANY, ARE THE MINIMUM REQUIRED. ADJUST, AMEND, AND/OR ADD TO THE MEASURES SHOWN TO ACCOMMODATE SITE AND WEATHER CONDITIONS AND/OR AS OTHERWISE DIRECTED BY THE CITY OF BELLEVUE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF THE WORK SHOWN ON THESE DRAWINGS.
5. UTILITY LOCATIONS AND CHARACTERISTICS SHOWN ON THESE DRAWINGS, IF ANY, ARE BASED ON THE FIELD LOCATION OF THE APPARENT SURFACE EVIDENCE OF EXISTING STRUCTURES. THE UNDERGROUND ROUTING AND CONDITION OF BURIED UTILITIES HAS NOT BEEN VERIFIED OR CONFIRMED. FELID LOCATE, VERIFY DEPTH OF, AND ADEQUATELY PROTECT ALL UTILITIES.
6. SITE CONDITIONS MAY VARY BASED ON SEASON AND/OR TIME OF YEAR. CONTRACTOR SHALL ACCOMMODATE REALIZED AND ANTICIPATED SITE CONDITIONS WHEN COMPLETING THE WORK SHOWN ON THESE DRAWINGS.

RECOMMENDED CONSTRUCTION SEQUENCE:

CONTRACTOR:

1. FLAG OR OTHERWISE MARK WORK AREA LIMITS.
2. FIELD LOCATE, VERIFY DEPTH OF, AND ADEQUATELY PROTECT ALL UNDERGROUND UTILITIES AS WELL AS ROOF AND FOOTING DRAINS.
3. REQUEST AND ATTEND A PRE-CONSTRUCTION MEETING WITH OWNER AND PLAN DESIGNER.
4. CONTROL NOXIOUS WEEDS AND NON-NATIVE PLANTS WITHIN ALL PLANTING AREAS PER THE SPECIFICATIONS SHOWN ON THESE PLANS.
5. REMOVE ALL FOREIGN MATERIALS, CONSTRUCTION SUPPLIES, EXISTING PATHS, WALKWAYS, AND STAIRS.
6. DECOMPACT AND AMEND SOIL PER THE SPECIFICATIONS SHOWN ON THESE PLANS.
7. INSTALL NATIVE PLANTS PER THE SPECIFICATIONS SHOWN ON THESE PLANS.
8. INSTALL IRRIGATION SYSTEM PER THE SPECIFICATIONS SHOWN ON THESE PLANS.
9. INSTALL MULCH PER THE SPECIFICATIONS SHOWN ON THESE PLANS.
10. CLEAN-UP AND DEMOBILIZE FROM SITE.
11. REQUEST FROM AND ATTEND FINAL INSPECTION WITH OWNER.
12. PROVIDE 1 YEAR OF MAINTENANCE UNDER DIRECTION OF OWNER.

OWNER:

1. OWNER TO COMPLETE 5 YEARS OF MONITORING AND REPORTING TO THE CITY OF BELLEVUE.

SOIL DECOMPACTION AND AMENDMENT SPECIFICATIONS:

SOIL DECOMPACTION AND AMENDMENT SHALL NOT OCCUR DURING FREEZING WEATHER OR WHEN THE SOIL OR COMPOST IS FROZEN OR EXCESSIVELY WET.

PRIOR TO PLANT INSTALLATION, DECOMPACT AND AMEND SOILS PER THE FOLLOWING SPECIFICATIONS:

NON-STEEP SLOPE AREAS

- MECHANICALLY DECOMPACT SOIL TO A MINIMUM DEPTH OF 12 INCHES.
- APPLY 4 INCHES OF ORGANIC COMPOST COMPRISING **CEDAR GROVE COMPOSTING "BUILDERS BLEND" (WWW.CEDAR-GROVE.COM; 1-877-SOILS4U)** OR APPROVED EQUAL TO THE GRADED AREA.
- TILL IN COMPOST TO ACHIEVE A UNIFORM MIXTURE OF EXISTING SOIL AND COMPOST WITHIN THE UPPER 8 INCHES OF THE DECOMPACTED SOIL.
- RAKE/GRADE FINAL SURFACE TO PROVIDE A UNIFORM APPEARANCE.

STEEP SLOPE AREAS

- MIX ORGANIC COMPOST COMPRISING **CEDAR GROVE COMPOSTING "BUILDERS BLEND" (WWW.CEDAR-GROVE.COM; 1-877-SOILS4U)** OR APPROVED EQUAL BY HAND AS NEEDED TO ACHIEVE A 50/50 MIX OF SOIL AND COMPOST WITHIN PLANTING PIT BACKFILL.

NOXIOUS WEED & NON-NATIVE PLANT CONTROL SPECIFICATIONS:

NOXIOUS WEED AND NON-NATIVE PLANT CONTROL WORK SHALL BE TIMED APPROPRIATELY TO AVOID VEGETATION CLEARING DURING THE WET SEASON AND/OR WHEN SIGNIFICANT OR PROLONGED RAINFALL IS EXPECTED.

PRIOR TO SOIL AMENDMENT AND PLANT INSTALLATION, CONTROL NOXIOUS WEEDS AND NON-NATIVE PLANTS WITHIN EACH PLANTING AREA. TARGET NOXIOUS WEED SPECIES SHALL INCLUDE THE FOLLOWING:

- **ALL CLASS "A", "B", AND "C" NOXIOUS WEEDS IDENTIFIED ON THE LATEST KING COUNTY NOXIOUS WEED LIST.**
- **ENGLISH IVY (*HEDERA HELIX*)**
- **ENGLISH HOLLY (*ILEX AQUIFOLIUM*)**
- **HIMALAYAN BLACKBERRY (*RUBUS ARMENIACUS*)**
- **CUTLEAF BLACKBERRY (*R. LACINIATUS*)**
- **ALL NON-NATIVE AND ORNAMENTAL PLANT SPECIES.**

CONTROL WORK SHALL CONSIST OF THE CUTTING AND REMOVAL FROM THE SITE OF ALL ROOTS, STEMS, CANES, RUNNERS, SHOOTS, SEED PODS, FRUITING BODIES, AND LEAVES PER THE FOLLOWING METHODS:

DURING NOXIOUS WEED CONTROL WORK, EXISTING NATIVE VEGETATION SHALL BE PROTECTED FROM DAMAGE. ALL NOXIOUS WEED CONTROL CUTTINGS AND DEBRIS SHALL BE REMOVED FROM THE SITE.

CONTROL METHODS:

REDUCE TOP GROWTH. ACCEPTABLE METHODS INCLUDE: WALK BEHIND OR TRACTOR MOUNTED MOWER, EXCAVATOR WITH BUCKET AND THUMB, POWER SAW, BRUSH HOG, LINE TRIMMER, LOPPERS, CLIPPERS, HAND PULLING, OR APPROVED EQUAL.

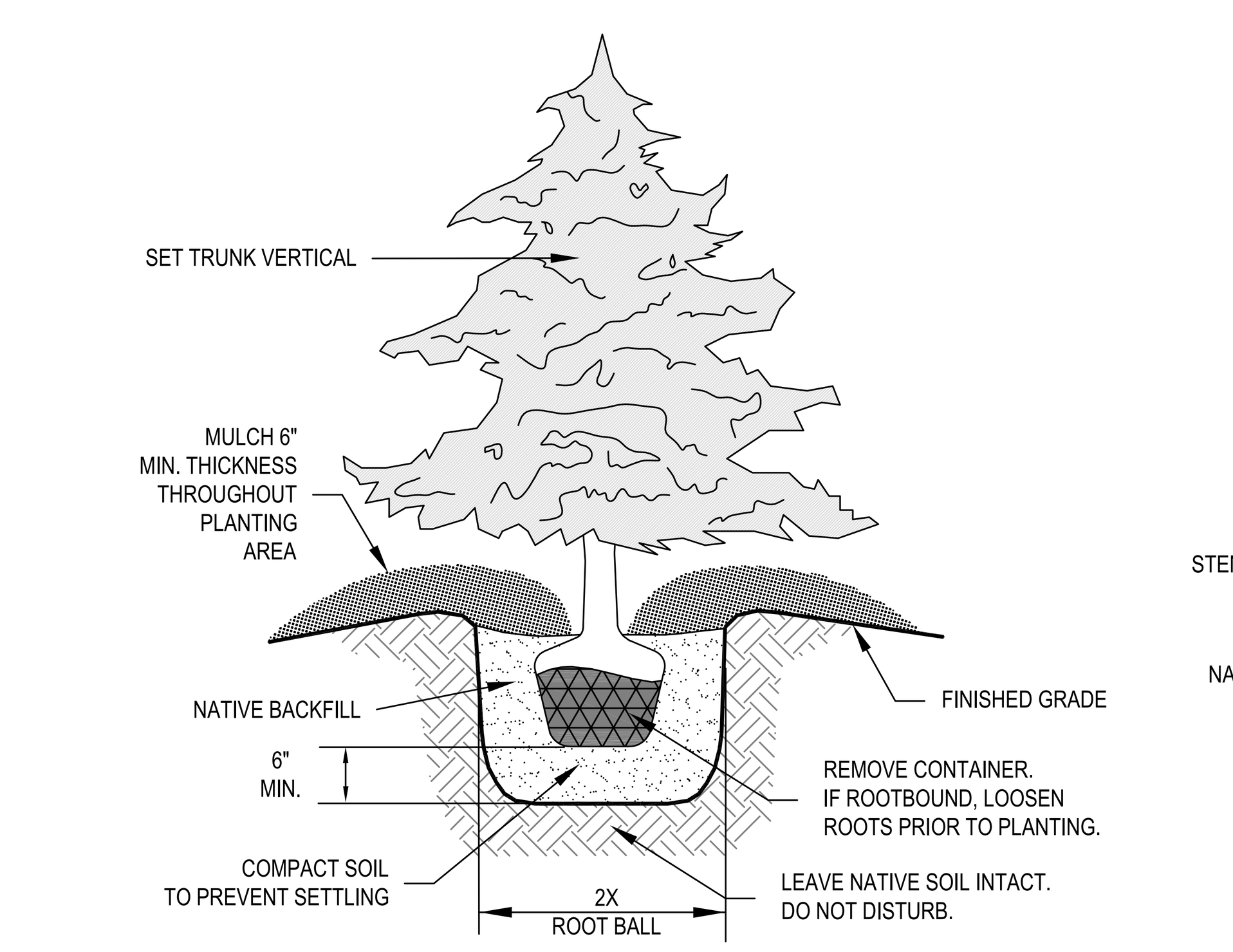
GRUB OUT LARGE ROOT CROWNS AND MAJOR ROOTS BY HAND USING CLAW MATTOCK, PULASKI, OR APPROVED EQUAL.

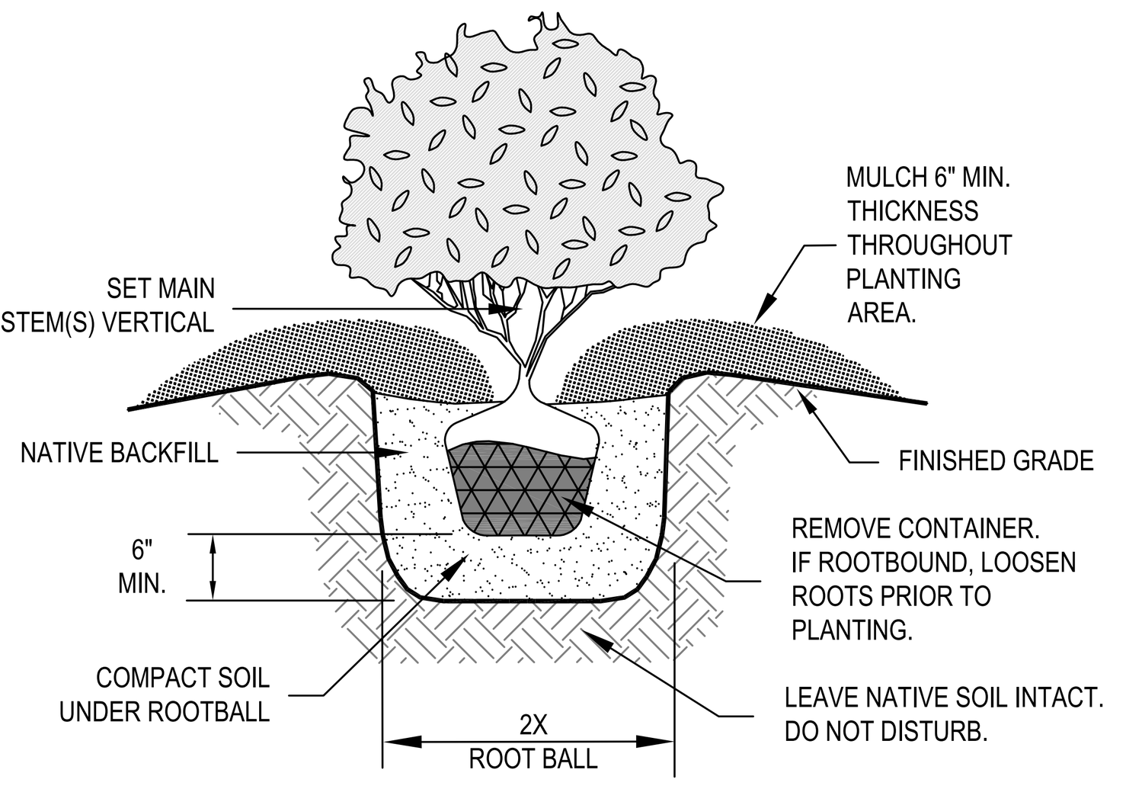
TEMPORARY IRRIGATION CONTROL SPECIFICATIONS:

IRRIGATION SHALL BE PROVIDED FOR **2 GROWING SEASONS** FOLLOWING PLANT INSTALLATION. IRRIGATION SHALL BE PROVIDED BY AN AUTOMATIC SPRINKLER OR AUTOMATIC DRIP SYSTEM THAT PROVIDES A MINIMUM RAINFALL EQUIVALENT OF 1 INCH PER WEEK FROM **JUNE 15 THROUGH SEPTEMBER 15**. IRRIGATION SHALL BE APPLIED IN A MANNER THAT MAINTAINS PLANT HEALTH, PREVENTS WILTING, AND PROMOTES DEEP PLANT ROOT SYSTEMS.

MULCH SPECIFICATION:

FOLLOWING PLANT INSTALLATION, PLACE MULCH THROUGHOUT THE PLANTING AREA TO A UNIFORM APPLIED DEPTH OF 6 INCHES. MULCH SHALL BE COMMERCIALLY AVAILABLE **"DOT WOOD CHIP MULCH" (WWW.PACIFICTOPSOILS.COM; 425-337-2700)**, **"MEDIUM/FINE BARK" (WWW.PACIFICTOPSOILS.COM; 425-337-2700)**, ARBORIST CHIPS, OR APPROVED EQUAL. MULCH SHALL NOT CONTAIN RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO PLANT LIFE. MULCH SHALL NOT BE DERIVED FROM STUMP GRINDINGS AND SHALL NOT CONTAIN SOIL. HOG FUEL OR EQUAL IS NOT ACCEPTABLE. SUBJECT TO REVIEW BY THE PLAN DESIGNER, LOCAL ARBORIST AND/OR COMMERCIAL TREE TRIMMING COMPANIES MAY BE ALTERNATIVE ACCEPTABLE MATERIAL SOURCES.





1/1 **PLANT INSTALLATION DETAILS**

Evergreen Aquatic Resource Consultants, LLC
Wetland Delineation
Mitigation Design
Mitigation Monitoring
PO BOX 1721
ISSAQUAH, WASHINGTON 98027
TEL - (425) 677-7166
FAX - (866) 584-3244
WWW.EVERGREENARC.COM

BRYANT RESIDENCE

Client: Ripple Design Studio, Inc.
4303 Stone Way North
Seattle, Washington 98103

Site Address: 701 Shoreland DR SE
Bellevue, Washington

Know what's **below.**
Call before you dig.

NO.	DATE	NOTES

DATE: 10/12/2017
JOB NUMBER: 16026

Monitoring Plan, Specifications, Notes, & Details

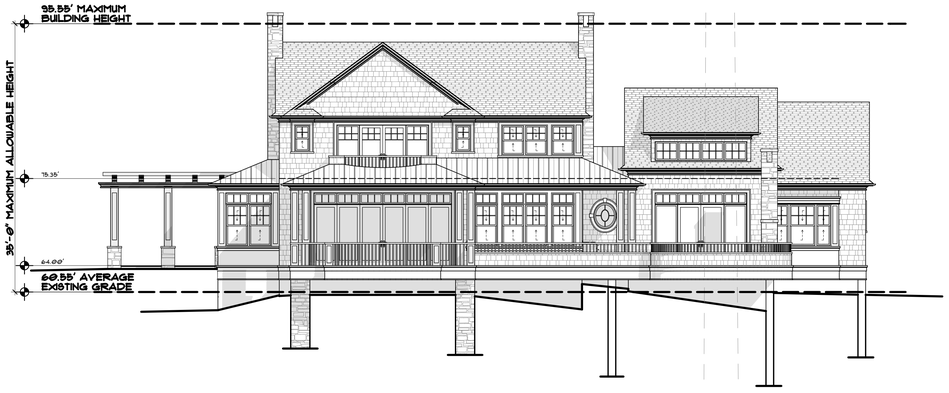
SHEET: **1** OF **1**

RIPPLE
DESIGN STUDIO
206.913.2333
4303 STONE WAY N
SEATTLE, WA 98103

9790 REGISTERED ARCHITECT
JAMES M DEARTH
STATE OF WASHINGTON

BRYANT RESIDENCE

701 SHORELAND DR SE BELLEVUE, WA

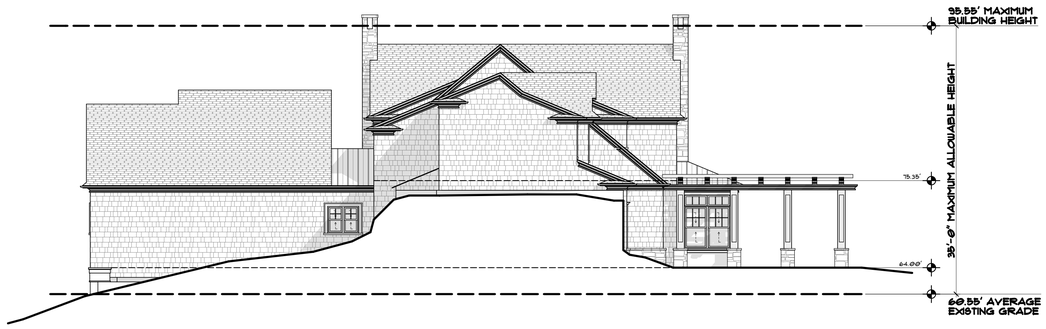


WEST ELEVATION 2

SCALE: 1/8" = 1'-0"

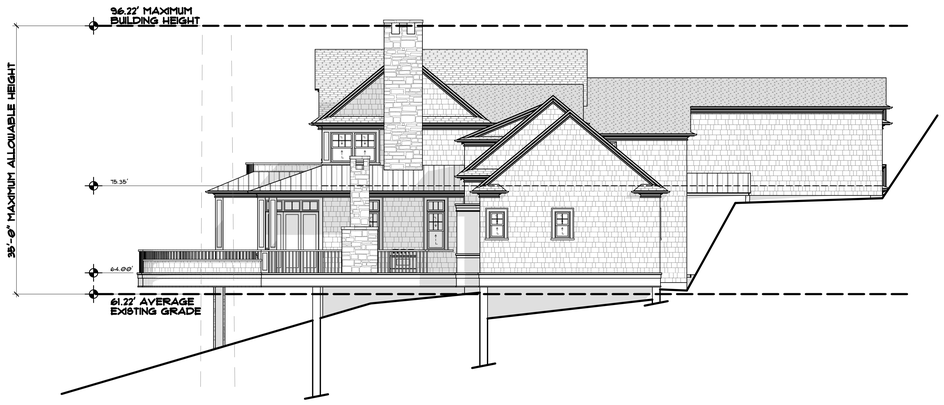
NORTH ELEVATION 1

SCALE: 1/8" = 1'-0"



EAST ELEVATION 4

SCALE: 1/8" = 1'-0"



SOUTH ELEVATION 3

SCALE: 1/8" = 1'-0"

BUILDING ELEVATIONS

RELEASE